

Wm B White
1807

THE
Practical Physician;
OR,
MEDICAL INSTRUCTOR.



POINTING OUT
REMEDIES
FOR THE VARIOUS
DISEASES OF MANKIND:

WITH DIRECTIONS FOR
THE PRESERVATION OF HEALTH.

SPECIFYING THE

Causes, Symptoms, proper Regimen, and Method of Cure
OF THE DIFFERENT

Disorders incident to the Human Body.

ADAPTED TO THE USE OF

PRIVATE FAMILIES;

Though conveying equal INFORMATION TO THE SCIENTIFIC.

TOGETHER WITH

OBSERVATIONS

ON

DIET, AIR, AND EXERCISE.

THE EFFECTS OF THE PASSIONS,

And their Influence on the Production and Prevention of Disease.

INCLUDING,

MEDICAL ADVICE TO WOMEN,

ON

PREGNANCY, CHILD-BIRTH, &c.

AND AMPLE

INSTRUCTIONS TO PARENTS AND NURSES,

RESPECTING THE

DISORDERS OF CHILDREN.

By **LEWIS MANSEY, M. D.**

*Assisted by Communications from the most respectable Practitioners, and the Productions
of the most celebrated Medical Writers, whose Names are cited.*

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PREFACE.

THE Title-Page of this Performance, it is presumed, will sufficiently explain the general tendency and nature of it; but, for the further satisfaction of our Readers, we shall concisely mention the principal outlines of our Plan. Let it be premised, however, that Medicine consists, according to *Boerhaave*, in the knowledge of those things, by the application of which life is either preserved sound and healthy, or, when disordered, is again restored to its pristine healthiness; or, according to the definition of *Galen*, it is the art of preserving present health, and of retrieving it when lost.

Many excellent treatises have, from time to time, issued from the press, on the causes, symptoms, and cure of diseases; and these have been consulted with advantage by Apothecaries, Medical Students, and even young Physicians; but the terms were frequently found too scientific and technical to be fully comprehended by the general reader.

This consideration has induced the Author to commit the following pages to the press, wherein he has endeavoured to give ample information on the prevention and cure of

the tremendous catalogue of diseases to which human nature is unfortunately liable, divested of all technical terms, and scientific parade.

When we reflect on the vast number of persons annually swept away by disease, the majority of whom, it is to be feared, fall victims to the ignorance and presumption of empirics, and unskilful practitioners, no apology appears necessary for the introduction of the present Work. A work calculated to prevent, cure, palliate, or render supportable, every species of Illness or Distemper, by proper regimen and simple medicine. It is not the intention of the Author to make every man a profound physician, or to depreciate that profession of which he has for many years been a member; but he feels himself happy in communicating such information to his readers, as he hopes will enable them to ward off the approaches of the insidious enemy, defend them from his attacks, or restore them to that vigour of constitution, which their imprudence or excess may, for a time, have forfeited.

It is a just and general observation, that the greater part of mankind are too apt to pay attention to trifles, whilst they are almost wholly regardless of important concerns.—This position is clearly illustrated by the following

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following familiar observations: We are ever ready to intrust life and health in the precarious hands of a medical pretender, in consequence of which one or both are usually lost; or we follow the advice of an ignorant self-constituted lawyer, who, under pretence of accomplishing our business at the cheapest rate, deprives us of the whole of our property. How many patients are prematurely hurried into the other world by Quacks or Charlatans! How many families are ruined by dabblers in the law, whose ill-penned wills, deeds, &c. furnish everlasting employment and litigation for our courts of Law and Equity!

Thus it appears that life, health, and property, the most valuable gifts that Heaven can bestow on mortals, are considered by the world in general, as objects of inferior concern; while they spare no expence in furnishing, embellishing, and decorating their houses, persons, &c. and always apply to the most eminent professor or artisan in his respective professional department.

By timely assistance and simple application, many symptoms, which are the fore-runners of disease, and eventually of death, might be palliated or removed, were mankind to make a point of acquiring a sufficient portion of medical knowledge, to qualify them to assist a friend

friend or neighbour afflicted with any illness. How consoling must be the reflection to a benevolent man, who, by a little application, has found himself frequently enabled to procure returning health to a suffering individual!

Any eulogy or encomium on the practice of physic would doubtless be thought unnecessary here; or even a History of its origin, rise, and progress. It may be expected, however, that the principal contents of the following pages will be named, to inform the reader of the nature and quality of the information that is meant to be communicated to him.

In addition to the knowledge acquired from a long and extensive practice, the Author has availed himself of the advantage of a large Medical Library, to which he has at all times had free and unlimited access; whence he has enriched the following pages, by gathering from the labours of established authors and practitioners, the most approved methods of prevention and cure of disease; and as the medical tracts which have lately issued from the press have been both numerous and useful, he would think himself unpardonable, as the last traveller on this popular road, not to admit into his performance all the improvements to be derived from so respectable a source

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source. The works of the following authors are those to whom he is principally indebted, viz. the Doctors

HARVEY,	LEWIS,	SIR J. FLOYER,
SYDENHAM,	TISSOT,	RUSSEL,
CHEYNE,	DUPLANIL,	HONSE,
ARBUTHNOT,	HEBERDEN,	VAUGHAN,
FRIEND,	STORCK,	LOCKER,
MEAD,	MONRO,	BATTIE,
BOERHAAVE,	CULLEN,	MILMAN,
VAN SWIETON,	WATSON,	CHAPMAN,
HOFFMAN,	WITHERING,	MACBRIDE,
JUNCKER,	DICKSON,	FORDYCE,
LIND,	LEATHERLAND,	BUCHAN,
FOTHERGILL,	SIMMONS,	TEMPLE,
LETTSON,	HUNTER,	LEAKE, and
HUXHAM,	SIR J. PRINGLE,	PERCIVAL.

In order to render this work as clear and intelligible as possible, we shall divide the respective parts under distinct heads, beginning with the means of preserving health, by observations on the different qualities of Air, Exercise, and Diet. The effects of the Passions, Intemperance, &c. We shall then proceed to point out the causes, symptoms, and effects of the various disorders, and the proper medicine and regimen for the restoration and preservation of health.

The indispositions of pregnant women, and the various disorders peculiar to the female-sex, will next engage our attention, and be very

very particularly discussed. Ample instructions to Parents and Nurses, on the management of Children will also be given; with Observations on the general causes of their diseases, and the most approved method of removing them. Though our limits will not admit of an extensive treatise of Surgery, we shall not omit the proper treatment of wounds, bruises, &c. proceeding from such accidents and casualties as attend mankind; for though these misfortunes frequently require the skill of the experienced surgeon, they may nevertheless be rendered less grievous by a timely and proper application. We have not omitted to insert Cautions concerning Hot and Cold Bathing—observations on the effects of mineral waters—on the diet of common people—Receipts for preparing or making such patent and compound medicines as have been admitted into practice with success.

In fine, it will be our particular study to point out the different remedies for every disorder in the most familiar manner, omitting nothing that can assist the reader in retaining health, or restoring it when impaired.

THE
PRACTICAL PHYSICIAN;
OR,
MEDICAL INSTRUCTOR.

PART I.
OF AIR, EXERCISE, SLEEP AND CLOTHING.

OF AIR.

IT is well known that fresh air is more immediately necessary to life than food; for a man may live too or three days without food, but he cannot live many minutes without the air. Respiration, or breathing constitutes one of those functions which are properly termed vital, as being essential to life; for *to live* and *to breathe* are in fact synonymous terms. One reason why an animal body does not putrefy while alive, is its ventilation, as we may call it, by breathing; and another is, the continual accession of new particles, less disposed to putrefy than itself by the food which is constantly taken in; but if either of these ways of preventing the beginning of this process are omitted, then putrefaction will take place as well in a living as in a dead body.

It appears from the experiments of Dr. Priestley, that fixed air corrects and renders wholesome, air tainted with respiration or putrefaction. Hence he infers that lime-kilns which discharge great quantities of this air may be wholesome in the neighbourhood of populous towns, the atmosphere of which must abound with putrid effluvia. Sir William Lee, in a hot season, contrived by impregnating water, and washing meat with it two or three times a-day, not only to preserve it perfectly sweet and good to the extent of ten days, as at the first killing, but also to recover some meat that had begun to change. And it is also well known, that fixed air has been lately introduced into the materia medica, and administered with success in a variety of putrid

No. 1. B cases,

cases. Putrefying and fermenting substances have been found, by the experiments of Mr. Cavendish, Dr. Priestley, &c. to yield not only to fixed but inflammable air.

With respect to climate, various observations prove, that those regions which lie within the temperate zones are best calculated to promote long life. Hence perhaps it may be explained why Italy has produced so many long lives, and why islands in general are more salutary than continents; of which Bermudas and some others afford examples. It is a pleasing circumstance that this island (notwithstanding the sudden changes to which it is liable) contains many more instances of longevity than could be well imagined. Mr. Whitehurst assures us, from certain facts, that Englishmen are in general longer lives than North Americans; and that a British constitution will last longer, even in that climate, than a native one.

But it must be admitted, in general, that the human constitution is adapted to the peculiar state and temperature of each respective climate, and consequently that no part of the habitable globe can be pronounced too hot or too cold for its inhabitants: yet, in order to promote a friendly intercourse between the most remote regions, the Author of nature has wisely enabled the inhabitants to endure great and surprising changes of temperature without much inconvenience.

North and north-east winds are reckoned bracing and salutary, but the valetudinarian is most comfortable when the wind is south, and south-west. Dry seasons in general are healthier than wet. Both appetite and digestion are better in winter than in summer. Even our tempers and dispositions are much affected by the seasons: long easterly winds will render the chearful peevish and morose. An excess of gravity in the air quickens the circulation, dilates the lungs too much, hastens the blood to the brain, and produces rheumatism, gout, nervous and hysteric disorders.

When the air is too dry, it shrivels up the solids, and disposes to fevers. A too moist air is equally pernicious, as it relaxes and debilitates, lessens perspiration, occasions

sions the blood to become too watery, and produces coughs, asthmas, dropies, intermittent and nervous disorders, &c. From a mixture of these different qualities of the air, different disorders are produced: cold moist air is bad, but a hot, moist, and light air is the most injurious, on account of its relaxing and putrescent tendency. The infirm suffer much from the disposition and changes of the air. Dr. Keil observes, that bodies emaciated by sickness or evacuations, draw more than full ones. And Dr. Monro, senior, asserts that the body absorbs more or less according to its vigour.

The air on the tops of mountains is generally more salubrious than in pits. Dense air indeed is always more proper for respiration than such as is more rare; yet the air on mountains, though much more rare, is more free from vapours than that of pits. Hence it has been found that people can live very well on the tops of mountains, where the barometer sinks to fifteen or sixteen inches. *Monf. de Saussure*, in his journey upon the Alps, having observed the air at the foot, on the middle, and on the summits of various mountains, observes, that the air of the very low plains seems to be the less salubrious; that the air of very high mountains is neither very pure, nor, upon the whole, seems so fit for the lives of man, as that of a certain height above the level of the sea, which he estimates to be about five or six hundred yards.

Dr. *Ingenhoufz*, soon after he left London, sent an account of his experiments made in 1779, upon the purity of the air at sea, and other parts; which account was read before the Royal Society, the 24th of April, 1780. His first observations were made on board a vessel at the mouth of the Thames, between *Sheerness* and *Margate*, where he found that the air was purer than any other sort of common air he had met with before. He observed that the sea-air, taken farther from the land, between the English coast and *Ostend*, was not so pure as that tried before; yet this inferior purity seems not always to take place. The Doctor's general observations, deduced from his numerous experiments,

are, "that the air at sea, and close to it, is in general
 "purer, and fitter for animal life, than the air on the
 "land, though it seems to be subject to some in-
 "consistency in its degree of purity with that of the
 "land: that probably the air will be found in general
 "much purer far from the land than near the shore, the
 "former being never subject to be mixed with land-
 "air."

The Abbé Fontana, who has made a great number
 of very accurate experiments upon this subject, con-
 cludes with observing, that "Nature is not so partial
 "as we commonly believe. She has not only given us
 "an air almost equally good every where at every time,
 "but has allowed us a certain latitude, or a power of
 "living and being in health in qualities of air which
 "differ to a certain degree. By this I do not mean to
 "deny the existence of certain kinds of noxious air in
 "some particular places; but only say, that in general
 "the air is good every where, and that the small dif-
 "ferences are not to be feared so much as some people
 "would make us believe. Nor do I mean to speak
 "here of those vapours which are accidentally joined to
 "the common air in particular places, but do not change
 "its nature and intrinsic property. This state of the
 "air cannot be known by the test of nitrous air; and
 "these vapours are to be considered in the same man-
 "ner as we should consider so many particles of arsenic
 "swimming in the atmosphere. In this case it is the
 "arsenic, and not the degenerated air, that would kill
 "the animals who ventured to breathe it."

Hence it is so far from being a wonder, that we
 sometimes suffer in our health by a change of weather,
 that it is the greatest wonder we do not suffer oftener
 and more by such changes. For when we consider,
 that our bodies are sometimes pressed upon by near a
 ton and an half weight more than at another, and that
 the variation of the additional pressure of many pounds
 is often very sudden; it is surprising that every such
 change does not entirely break the frame of our bodies
 in pieces, In effect, the vessels of our bodies being
 much

much straitened, by an increased pressure, would stagnate the blood, and the circulation would quite cease, if nature had not wisely contrived that, when the resistance to the circulating blood is greatest, the impetus by which the heart contracts should be so also.

It is a vulgar error among many, to believe that fire purifies the contaminated air, by destroying the noxious particles mixed with it; and for this reason they suppose that the fire kept in a room where the air is tainted, purifies the room, by rendering the air in it again fit for respiration. Indeed, a fire kept in a room or apartment where the air is tainted, as is the case in hospitals, gaols, and the like, certainly purifies the apartment, and the practice is very useful; but this effect is only because the fire promotes the circulation of the air, and dries the dampness of rooms, furniture, &c. so that it is not the infected air that is purified, but new, fresh, and wholesome air, that, by the action of the fire, has taken the place of the infected air; which infected air, being rarified by the heat, has been expelled from the apartment.

From a hot air proceed bilious and inflammatory fevers, Cholera Morbus, &c. Very cold air obstructs the perspiration, constricts the solids, and condenses the fluids; producing rheumatisms, coughs, and catarrhs, with other disorders of the throat and breast. Air, when too light, destroys the elasticity of the solids, and renders the body liable to the attacks of agues, intermitting fevers, dropies, &c.

Large rooms should always be preferred for sleeping in; a small room is pernicious; and if a fire be kept in a small room, the danger becomes greater. The air of a sick person's chamber is much freshened, and the patient greatly revived, by frequently sprinkling the floor, bed, &c. with vinegar, juice of lemon, &c.

Where numbers of sick are crowded together in the same house, or in the same apartment, fresh air ought frequently to be admitted. Air which stagnates in mines, wells, cellars, &c. is extremely noxious, and should be avoided as the most deadly poison. It often kills

kills as suddenly as lightning ; people should therefore be extremely cautious in opening cellars that have been long shut, or in descending into deep wells or pits, especially if they have been kept close covered. Many lives are lost by incautiously entering such places ; but these accidents might be prevented, by letting down a lighted candle before them, and stopping if it should go out.

Air passing over clayey ground is moist and thick : over dry and sandy ground, it is dry and dusty : on the tops of hills it is thin, cool, and free from vapours : in vallies it is gross, impure, and hot ; though in winter, if the winds are very high, the vales are the coldest, because they are overshadowed : on the declivity of hills, the air is generally pure, and of a moderate temperature ; and in an open country, the air is generally moderate in all its qualities, of heat, coldness, dryness, and moisture.

The air usually breathed in crowded assemblies, where it has not a free current, is very pernicious. That of populous cities must, in many cases, be unwholesome and impure ; the vapours arising from putrid filth of various denominations, must create variety of disorders. Church-yards, especially in large towns, ought never to have been made burial-places : Heaps of putrid carcases of the dead deposited so near the surface of the earth, must certainly be offensive and dangerous to the living. Though mistaken zeal and superstition have hitherto countenanced such a practice, the folly of it is too apparent. The parishes of St. Andrew, Holborn, St. George, Hanover-Square, &c. have wisely taken the lead in adopting burying-grounds remote from the metropolis, and it is hoped that such a practice will become universal.

To bury within churches is certainly more censurable and dangerous : Those places of worship are sufficiently noxious from their being so seldom opened ; from their not being ventilated, and from their not being purified by fires and open windows. Hence a damp and musty smell is immediately perceived upon entering those
sacred

sacred temples of devotion. It is very reasonable indeed to suppose, that these considerations keep many people from their respective parish-churches, especially those who are weak and valetudinary. Those who are indifferent about the performance of their religious duties, are not ashamed to assign the reasons above-mentioned as a plausible excuse for their non-attendance at divine worship.

No house can be wholesome which has not a passage of free air through it. Beds, instead of being hastily turned up in a morning when people rise out of them, ought to be turned down, and exposed to the fresh air, from the open windows, throughout the day.

The air of a bed-room at various times, *viz.* at night, and in the morning after sleeping in it, has been examined by various persons; and it has been generally found that, after sleeping in it, the air is less pure than at any other time. The air of privies, even in calm weather, has not been found to be so injurious as might have been expected, notwithstanding its disagreeable smell. From this, and other observations, it is thought that the exhalations of human excrements are very little, if at all, injurious, except when they become putrid, or proceed from a diseased body; in which case they speedily infect the air.

Delicate persons, and such as are asthmatic and consumptive, should avoid the air of great towns as much as possible. If their situations and circumstances in life will not admit of their yielding obedience to such rules, they should, at least, go as often into the open air as they possibly can, and be careful to introduce it frequently into their own houses. Air and cleanliness are often found more serviceable to mankind than all the endeavours of the faculty.

Houses situated near stagnated lakes or ponds are extremely unwholesome. Such waters render the air damp, and load it with putrid exhalations; and occasion diseases which are dangerous, and often fatal.

Wherever air stagnates long it becomes unwholesome; hence those who are confined in prisons contract malignant

nant fevers, and communicate them to others: the low, dirty habitations of the poor, in great towns, are, in this respect, little better than prisons, and the wretched occupiers seldom enjoy good health.

EXERCISE.

EXERCISE increases the circulation of the blood, attenuates and divides the fluids, and promotes a regular perspiration, as well as a due secretion of all the humours: for it accelerates the animal spirits, and facilitates their distributing into all the fibres of the body, strengthens the parts, creates an appetite, and helps digestion. Whence it arises, that those who accustom themselves to exercise are generally very robust, and seldom subject to diseases.

Many people consider the necessity of labouring for bread as a curse; but it has been rather pertinently observed by Dr. Buchan, "That those whom poverty obliges to labour for daily bread, are not only the most healthy, but generally the most happy part of mankind. Industry seldom fails to place such above want, and activity serves them instead of physic."

The late Dr. Armstrong, a man equally celebrated as a poet and a physician, has the following lines in his *Economy of Health*—

"Toil and be strong. By toil the flaccid nerves

"Grow firm, and gain a more compacted tone.

And in another part the same author truly observes,

"By health the peasant's toil

"Is well repaid."

Another testimony in favour of exercise, appears in a little volume just published, under the title of *The Villager's Friend and Physician*, by Mr. Parkinson. His words are too emphatical to be omitted here. "Exercise," says he, "gives strength to every fibre, and energy and spring to all the vital powers."

Labour or exercise, says Dr. Cheyne, is indispensibly necessary to preserve the body any time in health. Let

any

any diet be pursued, however adjusted both in quantity and quality; let whatever evacuations be used to lessen the malady, or any succedaneum be proposed to prevent the ill effects, still our bodies are so made, and the animal œconomy is so contrived, that, without due labour and exercise, the juices will thicken, the joints will stiffen, the nerves will relax; and from these disorders, chronical diseases, and a crazy old age must ensue.

People who lead a sedentary life, and do not use exercise, are liable to an universal relaxation of the solids, which bring on other disorders, glandular obstruction, weak nerves, and defect of perspiration.

Of all the exercises that are, or may be, used for health, as walking, riding on horse-back, or in a coach, fencing, dancing, bowling, digging, pumping, ringing, &c. walking is the most natural, and would be the most useful, if it did not spend too much of the spirits of the weakly. But riding is certainly the most manly, and the most healthy; and is less laborious and expensive of spirits than any. But though it is generally said that riding is a more healthy exercise than walking; the assertion, in some cases, appears too general; for walking is much more effectual than riding, in promoting an increase of muscular strength, and imparting to the fibres a due elasticity. But where any of the viscera are much obstructed, and a patient is too weak to support sufficient walking exercise, in such case riding may be more beneficial. Upon the whole it may be said, that walking is best for the preservation of health, and riding for the relief of chronical diseases; for in those which are acute, neither of them is adviseable.

Exercise, when too much or too frequently used, occasions loss of appetite, loathing of food, heat in the bowels, costiveness, and fainting. In this case, a moderate use of wine, warm bathing, quiet sleep, and nourishing diet, afford the most proper relief.

Boerhaave recommends bodily exercises in diseases of a weak and lax fibre; yet it is to be observed that a weak man should not ride with a full stomach, but either before dinner, or after the digestion is near finished;

for when the stomach is distended, weak people cannot bear the shaking of the horse without difficulty. Sailing in a ship is an exercise of great use to weak people: if the vessel moves with an even motion, by increasing perspiration it usually excites a wonderful alacrity, creates an appetite, and promotes digestion. These exercises are more especially serviceable to weak people; but in order to strengthen the body by muscular motion, running and bodily exercises are to be used. In these we should begin with the most gentle, such as walking, and increase it by degrees till we come to running. Those exercises of the body are more especially serviceable, which give delight to the mind at the same time, as tennis, fencing, &c. for which reason the wisdom of antiquity appointed rewards for those who excelled in those gymnastic exercises, that by this means the bodies of their youth might be hardened for warlike toils.

Those organs of the body that are most used, always become strongest; so that we may strengthen any weak organ by exercise. Thus the legs, thighs, and feet of chairmen; the hands and arms of watermen; the backs and shoulders of porters, grow thick, strong, and brawny, by time and use.

It is certain also that speaking strong and loud will strengthen the voice, and give force to the lungs. To the asthmatic, therefore, and those of weak lungs, I would recommend, says Dr. Cheyne, talking much and loud; walking up easy ascents, &c. To those of weak nerves and digestion, riding on horse-back; to those troubled with the stone, riding over rough causeways in a coach; to those troubled with rheumatic pains, playing at billiards, cricket, or tennis; to those of weak arms or hams, playing at tennis, or football; to those of weak backs, or breasts, ringing a bell, or working at the pump. Walking through rough roads, even to lassitude, will best recover the use of the limbs to the gouty; though riding will best prevent the disease: but the studious, the contemplative, the valetudinary, and those of weak nerves, must make exercise a part of their

their religion. A condition necessary to render exercise as beneficial as may be, is, that it may be used on an empty stomach.

It should be remembered, however, that though moderate exercise is necessary, yet wild irregular fallies of it are injurious. Regular exercise will demand regular rest.

“Weariness

“Can snore upon the flint, when resty sloth

“Finds the down pillow hard.”

Though nothing is more conducive to health than moderate exercise, so violent exercise dissipates the spirits, weakens the body, destroys the elasticity of the fibres, and exhausts the fluid parts of the blood. No wonder then that acute and mortal fevers often arise from too violent exercise of the body; for the motion of the venous blood towards the heart, being quickened by the contraction of the muscles, and the veins being thus depleted, the arteries more easily propel their contained humours through the smallest extremities into the now less resisting veins; and therefore the velocity of the circulation will be increased through all the vessels.

But this cannot be performed without applying the humours oftener, or in a greater quantity, to the secretory organs in the same time, whence the more fluid parts of the blood will be dissipated, and what remains will be inspissated; and by the greater action of the vessels upon their contained fluids, and of the re-acting fluids upon the vessels, the blood acquires an inflammatory density. Add to this, that by the violent attrition of the solids and fluids, together with the heat thence arising, all the humours will incline to a greater acrimony, and the salts and oils of the blood will become more acrid and volatile. Hence, says Boerhaave, those fevers which arise from too much exercise or motion, are cured by rest of body and mind, with such aliments and medicines as moisten, dilute, and soften or allay acrimony.

All other animals, says Dr. Fordyce, have their faculties naturally as perfect, without any improvement,

as they can be, for their own use : but in man the natural faculties are but just sufficient for his existence, and that only in a small part of the earth. It is therefore left to himself to procure faculties, both of the body and mind, by proper exercise, by which he can excel all other animals in every power, inhabit the whole earth, and improve the powers of other animals for his own use.

Exercise of the powers of the body tends to weaken the mind, except so far as is necessary to give the body the proper strength. But a moderate exercise of the body and mind together, tends to strengthen the whole system, so that by custom the original power in the whole may be increased. A great exertion of the powers of the body, may exhaust the powers of the mind ; and, on the contrary, a great exertion of the powers of the mind may exhaust those of the body.

Exercise, when it is used in due time, is almost the only cure we know for glandular obstructions. It is certain, however, that those who take sufficient exercise, are strangers to those diseases ; but the indolent and inactive are too well acquainted with them. . The active or laborious do not often complain of nervous diseases ; these are principally engrossed by the indolent and affluent. Many, who by the caprice of fortune have fallen from opulence to poverty, and are obliged to labour for their daily bread, have this reflection to console them, that though they have lost their property, they are become rich in health ; without which no riches can be enjoyed.

But health cannot be enjoyed, where perspiration is not properly promoted ; and that cannot possibly be the case where exercise is neglected. Without due exercise to promote perspiration, and throw off offensive matter, it is retained in the body, vitiating the humours, and producing fevers, gout, rheumatism, &c.

Lying too long in bed in a morning, is a species of indolence that greatly impairs the health. The morning air strengthens and braces the nerves, and furnishes cheerfulness and a flow of spirits through the remainder
of

of the day. Custom soon renders early rising agreeable, and nothing contributes more to the acquisition and preservation of health. Pains of the stomach, wind, indigestions, &c. the natural consequence of ease and indolence, are not to be removed by medicines: to a vigorous course of exercise, and that only, they probably may yield.

Indolence is the parent of vice, and of many diseases; for where the mind is not engaged in some useful or lawful pursuit, it is constantly creating ideal pleasures, or is impressed with the apprehension of some imaginary evil. Industry and activity are the guardians of virtue and honour, which while they preserve the body from disease, afford to the mind a source of uninterrupted happiness.

Corpulency is promoted by any thing that tempers and softens the blood, and renders it less sharp or saline; such as want of exercise, an indolent life, too much sleep, and nourishing foods. It is prevented or removed by the contrary causes; and particularly by the use of salt and acid meats and drinks. Corpulency is the occasion of many diseases, and particularly the apoplexy. It was held infamous among the ancient Lacedemonians. Borelli recommends the chewing of tobacco, as a remedy against excessive fatness. Castile soap, in the form of a bolus, an electuary, pills, or dissolved in a gill or more of soft water, from one to four drachms, taken at bed-time, is strongly recommended with a view of reducing corpulency, in a discourse on its nature, cause, and cure, by Malcolm Flemmyng, M. D. Lond. 1760.

Sennertus mentions a man who weighed six hundred pounds; and a woman, thirty-six years of age, who weighed four hundred and fifty. Bright, of Malden, in Essex, who died in 1750, at the age of twenty-nine years, weighed six hundred and sixteen pounds.

OF FOOD.

FOOD is of two kinds, meat and drink, and, next to air, it is the most necessary thing for the preservation of our bodies; and as on the choice thereof our health greatly depends, it is of great importance to understand, in general, what is the most proper for our nourishment: and, in particular deviations from health, what is the best adapted to restore us. Our blood and juices naturally incline to become putrid and acrimonious: fresh chyle, duly received, prevents the destructive tendency, and preserves in them that mild state which alone consists with health. An animal diet affords the most of this bland nutritious mucilage; watery fluids dilute the too gross parts, and carry off what is become unfit for use.

The use of vegetables, however, prevents repletion, and a too great tendency to a putrescent acrimony of the blood. In hot climates, as well as against the constitutional heat of particular persons, vegetables are demanded in the largest portion: animal substances afford the highest relish while our appetite continues, but will cloy the appetite before the stomach is duly filled. Vegetables may be eaten after either flesh or fish: few herbs or fruits satiate so much as that the stomach may not be filled with them, when it is already satisfied with flesh or fish; whence it may be observed, that no diet which is very nourishing, can be eat to fulness, because its nutritious parts are oily and satiating. Health depends almost wholly on a proper crasis of the blood; and to preserve this a mixture of vegetables, in some degree, is always required, for a loathing is soon the consequence of animal food alone: hot acrid habits, too, receive from milk and vegetables what is necessary for correcting their excesses; but in cold, pituitous, and nervous habits, which want most nourishment from least digestion, and from the smallest quantity of food, animal diet is to be used more freely.

Thus

Thus much being offered as general principles, with respect to the matter and quality of our food or aliment, the valetudinarian may easily regulate his diet with some advantage to himself, by an attention to the few ensuing particulars. In Winter eat freely, but drink sparingly: roast meat is to be preferred, and what is drank should be stronger than at other seasons. In Summer, let thirst determine the quantity to be drank; cold stomachs never require much: boiled meats and vegetables, if not otherwise contradicted, may now be more freely used. Lax habits require the Winter's diet to be continued all the year, and rigid ones should be confined to that of the Summer.

Fat people should sometimes fast; the lean never should. Those who are troubled with eructations, or wind, occasioned by their food, should drink but little, and use some unaccustomed exercise.

The thirsty should drink freely, but eat sparingly. In general, let moderation be observed, and though no dinner has been had, a light supper is to be preferred. After very high-seasoned meats, a glass of water, acidulated with the acid elixir of vitriol, or, in very weak stomachs, the sweet elixir of vitriol, is far more assistant to the work of digestion than the common method of taking brandy.

Though foods and drink of the most simple kinds are allowed to be the best calculated for supporting the body in health; yet it can hardly be doubted but variety may be safely indulged in occasionally, provided men would restrain their appetites within the bounds of temperance; for bountiful nature cannot be supposed to have poured forth such a rich profusion of provisions, merely to tantalize the human species. Variety of a certain kind seems necessary; as vegetable and animal foods have their mutual advantages, tending to correct each other: Another variety, which is very proper, is that of liquid and solid food, which should be so managed as to temper each other. By the wonderful powers of the digestive organs, we find that a variety of animal and vegetable substances, of very discordant principles,

principles, are happily assimilated. But variety may be said to have its disadvantages, by promoting gluttony; that and the art of cookery, inducing men to take in more than they can properly digest: and hence, perhaps, very justly, physicians have almost universally preferred simplicity of diet; for, in spite of rule, man's eating will only be measured by his appetite, and satiety is sooner produced by one than many substances.

Since man has all manner of teeth, fit for the preparation of all sorts of food, should it not rather seem that nature intended he should live on all? And as the alimentary diet in the human-kind is fitted for digesting all sorts of food, may we not rather conclude that nature did not intend to deny us any? *Phil. Trans.* No. 269.

There is no error in this country more dangerous, or more common than the neglect of bread: for it is the safest of vegetable aliment, and the best corrector of animal food; and, by a large proportion of this alone, its bad consequences, when used in a hypochondriac state, have been obviated. The French apparently have as much animal food on their table as the Britons; and yet, by a greater use of bread, and the dried acid fruits, its bad effects are prevented; and therefore bread should be particularly used by the English, as they are so voracious of animal food. Vegetable food is not only necessary to secure health, but also long life.

It seems natural to distrust those cynical writers who would rigidly confine mankind to a single dish, and their drink to the mere water of the brook. Nature indeed has pointed out that mild insipid fluid as the universal diluent, and therefore most admirably adapted for our daily beverage: but experience has equally proved, that vinous and spirituous liquors, on certain occasions, are no less salutary and beneficial, whether it be to support strength against sickness or bodily fatigue, or to exhilarate the mind under the pressure of misfortunes. But what nature meant for innocent and useful cordials, to be used only occasionally and according to the direction of reason, custom and caprice have,

have, by degrees, rendered habitual to the human frame, and liable to abuses the most destructive and enormous.

The natural constitution of the body of man is such, that it can easily bear some changes and irregularities without much injury. Had it been otherwise, we should very frequently be put out of order by the slightest causes. This advantage arises from those wonderful communications of the inward parts, whereby, when one part is affected, another comes immediately to its relief.

Thus, when the body is too full, nature causes evacuations through some of the outlets: and for this reason it is, that diseases from inanition are generally more dangerous than from repletion; because we can more expeditiously diminish than increase the juices of the body. Upon the same account also, though temperance be beneficial to all men, the ancient physicians advised persons in good health to indulge a little now and then, by eating and drinking more plentifully than usual. But, of the two, intemperance in drinking is safer than in eating: and if a person has committed excess in the latter, cold water, drank upon a full stomach, will help digestion; to which it will be serviceable to add lemon juice, or elixir of vitriol. From satiety it is not proper to pass directly to sharp hunger, nor from hunger to satiety; neither will it be safe to indulge absolute rest immediately after excessive labour, nor suddenly to work laboriously after long indolence. In a word, all changes in the mode of living should be gradually made.

It has been proposed by Dr. Lind that the powder of salep should constitute part of the provisions of every ship's company. This powder and portable soup, dissolved in boiling water, form a rich thick jelly; and an ounce of each of these articles furnishes one day's subsistence to a healthy full-grown man. Indeed, from Dr. Percival's experiments it appears, that salep contains more nutritious matter, in proportion to its bulk, than any other vegetable production now used as food. It has the property also of concealing the nauseous taste

of salt water; and consequently may be of great advantage at sea, when the stock of fresh water is so far consumed, that the mariners are put upon short allowance. By the same mucilaginous quality, it covers the offensiveness, and even, in some measure, corrects the acrimony of salted and putrescent meats.

Both animal and vegetable food become unwholesome, when kept too long; they have a constant tendency to putrefaction; and when that has proceeded too far, they are offensive to the senses, and injurious to health. Diseased animals, and such as die a natural death, ought never to be eaten. Though poverty, or extreme hunger, may induce some people to submit to such imprudent acts, they ought to consider that by the danger they encounter, they are purchasing a wretched meal at too high a price.

Tame ducks, hogs, and other animals which feed grossly, are less wholesome than others. Animals which have not sufficient exercise are to be rejected. Stalled cattle, deprived of exercise and free air, grow fat, indeed; but they acquire gross humours, which are doubtless hurtful to those who feed upon them. Animals over-heated by driving are certainly unwholesome: the danger of eating the flesh of a creature which had died in a high fever, may easily be conceived.

The filthy custom, among butchers, of blowing air into the membrane of calves, &c. to render certain joints more agreeable to the eye, is indelicate and disgusting; especially as it is more than probable that such air proceeds from the lungs of a diseased and dirty fellow. The legislature would do well to discountenance this abominable practice, by enacting a penalty or punishment for it.

The people of England are too fond of animal food: hence they are so generally tainted with the scurvy, and its usual train of consequences; such as indigestion, low spirits, &c. Though animal food was designed for man, and may be moderately enjoyed without inconvenience, especially if it be accompanied with a proper mixture of vegetables; yet to eat voraciously of flesh twice or three times a-day, is certainly very improper.

proper. Only one meal of flesh ought to be eaten in twenty-four hours, and that one meal ought to consist of only one kind. The most obstinate scurvy has frequently yielded to a vegetable diet: milk alone will also perform wonders in that disease. Hence it appears, that if vegetables and milk were more used in diet, the scurvy, and putrid and inflammatory fevers would not be so prevalent as they now are.

The design of dressing meat is to loosen the texture of the flesh, and dispose it for dissolution and digestion in the stomach. Flesh not being a proper food without dressing, is alledged as an argument that man was not intended by nature for a carnivorous or flesh-eating animal. Dr. Cheyne observes, that boiling draws more of the rank, strong juices from meat, and leaves it less nutritive, more diluted, lighter, and easier of digestion: roasting, on the other hand, leaves it fuller of the strong nutritive juice, hard to digest, and requiring more dilution. Strong, grown, and adult animal food, should therefore be boiled, and the younger and tenderer roasted.

As to the effects of food on the mind, it is plain that the delicacy of feeling, liveliness of imagination, quickness of apprehension, and acuteness of judgment, more frequently accompany a weak state of the body. It is true, indeed, that the same state is liable to timidity, fluctuation, and doubt; while the strong have that steadiness of judgment, and firmness of purpose, which are proper for the higher and more active scenes of life. The most valuable state of the mind, however, appears to reside in somewhat less firmness and vigour of body. Vegetable aliment, as never over-distending the vessels, or loading the system, never interrupts the stronger motions of the mind; while the heat, fulness, and weight of animal food, are an enemy to its vigorous efforts. Temperance, then, does not so much consist in the quantity, for that always will be regulated by our appetite, as in the quality, viz. a large proportion of vegetable aliment.

Those who are troubled with eructations, or breaking of wind, occasioned by their food, should drink

but little, lay long in a morning, and use some unaccustomed exercise: those afflicted with hot alkaline eructations, or belchings, should use a diet composed chiefly of acid vegetables. Persons afflicted with the gout, lowness of spirits, or hysteric disorders, ought to avoid all flatulent or windy food; every thing viscid, glutinous, or hard of digestion; all salted or smoke-dried provisions, and whatever is harsh, acid, or apt to become sour on the stomach. Their food should be moderate in quantity, light, cool, and of an opening nature. A sedentary, studious, or inactive person should eat more sparingly than one who labours hard without doors. Food which would nourish a peasant, would perhaps with difficulty be digested by one who used but little exercise.

Diet should not be too uniform; as the constant use of any one kind of food might be pernicious. Nature teaches us this by the vast variety of food which she has provided for man, as well as by giving him an appetite for different kinds of aliment. Persons labouring under any disease, should not eat any thing that may have a tendency to increase it. A gouty person, for example, should consider acids, rich wines, and strong soups, as his most dangerous enemies: Those who are scorbutic should be sparing of the use of animal food; and those afflicted with the gravel should avoid austere astringent food.

The best, most simple, and light of digestion, are the foods prepared of grain and pulse; as wheat, rye, barley, oats, and maize, dried, ground, fermented, baked, &c. Peas, beans, vetches, &c. Also green plants and pot-herbs, as lettuce, beet, parsley, &c. Fruits, as apples, pears, berries, plumbs, cherries, &c. And the lean parts of animals, birds, fishes, insects, &c. prepared by boiling, baking, stewing, &c. And yet, for different intentions, different kinds of food are required. Thus hard, dry, thick, heavy foods are best for those whose viscera are strong, digestion quick, &c. and soft, light, watery, simple foods to such are pernicious. To the weak, infirm, studious, and sedentary, those

those foods are best which either by art or nature are the nearest to chyle; as milk, broths, &c.

A due regulation of the quantity and quality of our food, and a nice adjustment thereof to the digestive powers, is of the utmost consequence to health and long life. What we expend in motion, excretion, effluvia, &c. is but a determined quantity, and the supply should only keep pace with the expence; a just proportion of the two would probably preserve us from *acute** distempers, as it certainly would from chronical ones.†

Dr. Cheyne is of opinion that such vegetables and animals as come soonest to their growth, are easier of digestion than those long in attaining to maturity; the smallest of their kind, sooner than the larger; those of a dry, fleshy, and fibrous substance, sooner than the oily, fat, and glutinous; those of a white colour, sooner than those of a redder: those of a soft, mild, and sweet taste, sooner than those of a rich, strong, sharp, aromatic taste: Land-animals rather than sea-animals; animals that live on light vegetable food, in preference to those which feed on hard or heavy food: plain-dressed food, rather than that which is pickled, salted, baked, smoked, or otherwise high-seasoned.

To this effect are the observations of Mr. Parkinson: After cautioning his readers against the taking too freely of spices with their meals, he says, "Mustard, pepper, &c. substances of so fiery a nature that if applied pure to the skin, would soon excite a considerable degree of inflammation, or which if blended with milder substances, and applied frequently would harden the skin, and deprive it of its healthful sensibility, are taken into the stomach with as little caution as though they were as mild as milk, and without

* *Acute* diseases, are such as come suddenly to a crisis. This term is used for all diseases which do not fall under the head of *chronic* or *chronical* diseases.

† *Chronic* or *chronical* is applied to a slow disease, which continues a long time; at least upwards of forty days. Such are the gout, dropsy, asthma, &c.

" considering

“ considering that effects, similar to those they produce
 “ on the skin, succeed to their application to the stomach.
 “ The substances of which we are speaking, taken into
 “ the stomach, even in the quantity in which they most
 “ frequently are used, render the stomach less sensible
 “ to the calls of nature, and less capable of performing
 “ its function of digesting the food: at length heart-
 “ burn, sour risings, painful oppressions, and cramps of
 “ the stomach shew, that weakness of this organ is
 “ produced, in consequence of its having suffered too
 “ much irritation. You cannot be too watchful against
 “ the increase of this practice, for he that gratifies his
 “ taste, without the limitation of prudence, knows not
 “ where he may end. He that begins with a grain,
 “ may end with a pound.” *Villager's Friend*, &c. 16.

The same author observes, that abstinence and exercise must concur with the due food for the preservation of health; and that where exercise is wanting, as in studious persons, the defect must be supplied by abstinence.

Dr. Bryan Robinson thinks the quantity of food necessary to keep a grown person in health, will be better and more easily digested when it is so divided as to make the meats equal, than when they are unequal. The distance between one meal and another should bear some proportion to the quantity of the preceding meal. The same author supposes, that good and constant health consists in a just quantity of food, and a just proportion of the meat to the drink; and that to be freed from chronical disorders, contracted by intemperance, the quantity of food ought to be lessened, and the proportion of the meat to the drink increased more or less, according to the greatness of the disorders; and that both the quantity of food, and the proportion of meat to drink, ought to be such as shall make perspiration and urine nearly equal at all seasons of the year.

Wherever men are exposed to hard labour, their food should be animal. It is only proper for bodily labours, and entirely improper for mental exercises; for if any
 person

person would keep his mind acute and penetrating, he would exceed rather on the side of vegetable food. Even the body is oppressed with animal food; a full meal always produces dullness, laziness, and yawning. With regard to the strength of the body, animal food in the first stage of life is hardly necessary to give strength: in manhood, when we are exposed to active scenes, it is more allowable; and even in the decline of life, some portion of it is necessary to keep the body in vigour.

As the quantity and quality of the food are to be heedfully regarded, so are the times and seasons for receiving it. If concoction or digestion be perfected, the stomach is free for a dinner; but if an error be committed in digestion, we are to beware of receiving food upon crudities: for when crude juices are mingled one among another, we may reckon ourselves very fortunate if we can discharge them.

He who intends a regimen of diet, must not regularly limit himself to one or two meals a-day, but to eat after perfect digestion, for two meals may be too much for him; and even one, if chosen of improper meats, and his digestion be bad, may be hurtful; but let him, however, feed on pure and light food, and such as is familiar to his constitution and disposition. For it must be observed, that among several sorts of food of salutary juice; and easy of concoction, some are more acceptable than others, on account of a certain grateful propriety and familiarity with the stomach and palate.

Hence the same aliment is not to be offered to all indiscriminately, without the least variation; for sometimes a defect with one food, compared with another of better juice, is more than compensated by the inclination of the appetite towards it. And this ought not to seem strange, but very reasonable, that food with which our body is familiarized should prove most nutritive and grateful: for since there are various temperaments and qualities in food, it is very reasonable and natural that we should prefer such as are agreeable and salutary.

DRINK.

D R I N K.

DRINK is a part of our ordinary food, in a liquid form. The general use of drink is to supply fluid, facilitate solution, expedite the evacuation of the stomach, and promote the progress of the aliment through the intestines. The drinks in different countries are different. Those used among us, are water, malt liquors, wine, cyder, brandy, tea, &c. The first drinks of mankind were certainly water and milk, but luxury soon introduced the art of preparing intoxicating and inebriating liquors out of vegetables. The vine gave the first, and afterwards wheat, barley, millet, oats, rice, pears and pomegranates afforded a palatable fluid: the juices were then drained from the pine, fycamore, and maple, and brought successively to the same use. In later times roots, berries, and the pitch of the sugar cane have been employed for similar purposes, But before the use of the other things here mentioned, the vinous liquor made of honey and water, was in the highest estimation. The bees were naturally purveyors, and their stores were perhaps one of the first delicacies of the human race.

Water, says Dr. Cheyne, is the only simple fluid fitted for diluting, moistening, and cooling; the only ends of drink, appointed by nature; and happy had it been for mankind if other mixed and artificial liquors had never been invented. Water alone is sufficient, and effectual for all the purposes of human wants in drink. Strong liquors were never designed for common use: they were formerly kept here, as other medicines are, in Apothecaries' shops, and prescribed by Physicians, as they do *Diascordium*, and *Venice Treacle*, to refresh the weary, strengthen the weak, and raise the low-spirited: As natural causes will always produce their effects, the effect of the common use of wine and spirituous liquors, is to inflame the blood into gout, stone, rheumatism, fevers, pleurisies, &c. to dry up the

juices, and scorch and shrivel the solids. Those whose appetite and digestion are good and entire, never want strong liquors to supply them with spirits; such spirits are too volatile and fugitive for any solid or useful purposes of life.

Those who have carefully and effectually studied the human frame, all agree, that, among the strong drinks, spirits and wine are the most pernicious; and that good water, milk, beer, and cyder, are greatly preferable to them; none of them bringing on the variety of disorders, to which immoderate drinkers of wine and spirits are frequently subject, such as decay of sight, trembling of the limbs, &c.

The use of punch is condemned by several authors, as prejudicial to the brain and nervous system. Dr. Cheyne insists that there is but one wholesome ingredient in it, *viz.* the mere water. The proportions of the ingredients are various: some, instead of lemon-juice, use lime-juice, which is found less liable to affect the head, as well as more grateful to the stomach. Some also make milk-punch, by adding nearly as much milk to the sherbet as there is water, which tempers the acrimony of the lemon. Others prefer tea-punch, made of green-tea instead of water, and drank hot.

All strong liquors are as hard to digest, and require as much labour of the concoctive powers, as strong food itself. There are many spirituous liquors which are so far from dissolving certain parts, that they render them more indigestible. It is true, indeed, that strong liquors, by their heat and stimulation on the organs of digestion, by increasing the velocity of the motion of the fluids, and thereby quickening the other animal functions, will carry off the load that lies upon the stomach, with more *present* chearfulness. But then, besides the *future* damages of such a quantity of wine to the stomach and the fluids, by its heat and inflammation, the food is hurried into the habit unconnected, and lays a foundation for a fever, a fit of the cholick, or some chronical disease.

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With respect to fermented liquors which are generally used, it may be observed, that those which are too strong hurt digestion, and are so far from strengthening the body, that they weaken and relax it. They keep up a constant fever, which exhausts the spirits, heats and inflames the blood, disposes to numberless diseases, and occasions premature old age. But it is possible that fermented liquors may be too weak, as well as too strong; these must either be drank new, before the fermentation is over, which will generate air in the bowels and occasion flatulencies; or they soon become stale, sour the stomach, and impede digestion. On this account all malt liquors, cyder, &c. should be sufficiently strong to keep till they are ripe, and then they should be used, and neither sooner nor later. Liquors that are adulterated with a mixture of ingredients of the opiate kind, which are poisonous in their quality, by those who make them for sale, injure the nerves, relax and weaken the stomach, and spoil its digestive powers. The moderate use of sound fermented liquors will not be found hurtful to mankind.

The appetite for intoxicating liquors seems to be almost always acquired. One proof of which is, that it is apt to return only at particular times and places; as after dinner, in the evening, on the market-day, at the market-town, in such a company, at such a tavern. And this may be the reason, that if a habit of drunkenness be overcome, it is upon some change of place, situation, company, or profession.

It hath been observed, that the real use of strong liquors, and the abuse of them by drinking to excess, depend much upon the temperature of the climate, in which we live. The same indulgence which may be necessary to make the blood move in Norway, would make an Italian mad. A German, therefore, says Montesquieu, drinks through custom founded upon constitutional necessity; a Spaniard drinks through choice, or out of the mere wantonness of luxury: and drunkenness, he adds, ought to be more severely punished

nished where it makes men mischievous and mad, as in Spain and Italy, than where it only renders them stupid and heavy, as in Germany and more northern countries.

Habits of drunkenness often take their rise from a connection with some company or companion already addicted to the practice; which affords an almost irresistible invitation to take a share in the indulgencies which those about us are enjoying with so much apparent relish and delight; or from want of regular employment, which is sure to occasion many superfluous and pernicious cravings, and frequently this among the rest; or it may have originated from grief, or fatigue, either of which strongly solicit that relief which inebriating liquors administer for the present, and furnish a specious excuse for complying with the inclination. But the habit, when once adopted, is continued by different motives from those to which it owes its origin. Persons addicted to excessive drinking suffer, in the intervals of sobriety, and near the return of their accustomed indulgence, a faintness and oppression which it exceeds the common patience of human nature to endure. This is usually relieved for a short time by a repetition of the same excess: and to this relief, as to the removal of every long-continued pain, those who have once experienced it are urged almost beyond the power of resistance. Nor is this all; as the liquor loses its stimulus, the dose must be increased to arrive at the same pitch of elevation of ease; and such increase proportionally accelerates the progress of all the maladies that drunkenness produces. Whoever reflects upon the violence of the craving in the advanced stages of the habit, and the fatal termination to which the gratification of it leads, will, the moment he perceives the least tendency in himself of a growing inclination to intemperance, collect his resolution to this point; or, what perhaps will be his best security, arm himself with some peremptory rule or resolution respecting the times and quantity of his indulgencies.

Wisely is it observed, by Mr. Parkinson, that, "He

“ who, being engaged in works of labour, flies to
 “ liquor for a spur, whenever nature droops from too
 “ great exertion, makes terrible havock with himself.
 “ Nature, before worn down, is now forced and strained
 “ by these unnatural efforts; and if these be often re-
 “ peated, the shattered nerves will shew the vast da-
 “ mage they have suffered. Tremblings, sinking of the
 “ spirits, sleepless nights, and days of dreadful listless-
 “ ness, will be the fore-runners of some deadly ma-
 “ lady.”

He then adds, that drunkenness “ degrades man
 “ below the meanest reptile, renders his sober hours
 “ irksome beyond bearing, brings on the most dreadful
 “ diseases, and at last places him on a death-bed, the
 “ pillow of which it has filled with thorns.”

The same author finishes his observations on drunk-
 enness, with the following impressive charge to his
 readers: “ Do not be lulled into a false security, founded
 “ on one or two incorrigible drunkards enjoying seem-
 “ ing health, for they own not what they suffer; but
 “ judge from a larger scale. Look back to the latter
 “ days of all the votaries of Bacchus that come within
 “ your recollection, and then you will discover, that in
 “ general the wine-bibber is doomed to the torments of
 “ the gout, or of the stone or gravel; the dram-drinker
 “ becomes bloated with dropsy, and the swiller of beer
 “ stained with jaundice.” *Villager's Friend*, 14.

The uses of wine, however, are great, both as a
 beverage and a medicine. Several physicians recom-
 mend it as an excellent cordial, and particularly ser-
 viceable in fevers. The moderate use of wine is of
 service to the aged, the weak, and the relaxed, and to
 those who are exposed to a warm and moist, or a cor-
 rupted air: Wine deserves to be ranked first in the list
 of Antiscorbutic liquors. Considered as a medicine, it
 is a valuable cordial in languors and debilities; more
 grateful and reviving than the common aromatic infu-
 sions and distilled waters; particularly useful in the low
 stage of malignant or other fevers, for raising the pulse,
 and resisting putrefaction.

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The diseases, to which persons who persist habitually in the free use of wine, are most subject, are obstructions in the liver, in the mesenteric glands, and in other abdominal viscera, which are always succeeded by an incurable dropy. Those who digest wine well, suffer less sensibly the above-mentioned effects of drinking it: their intoxication is accompanied with vivacity and joy; but excess is injurious even to such persons; their constitution generally changes before they are sixty years of age; and the inheritance of their old age is either a severe gout or palsy, stupidity, imbecility, or an accumulation of these diseases.

With regard to the medical differences of wines, Dr. Lucas observes, that the effects of the full-bodied are much more durable than those of the thinner; that all sweet wines are in some degree nutritious; the others not at all, or only accidentally so, by promoting appetite, and strengthening the organs concerned in digestion; that sweet wines in general do not pass freely by urine, and that they heat the constitution more than an equal quantity of any other, though containing full as much spirit: and those which are manifestly acid pass freely and gently loosen the belly; and that most of the red ones are sub-astringent, and tend to restrain immoderate excretion.

The uses of water are infinite. As a food it is one of the most universal drinks in the world; and if we may credit many of our latest and most judicious physicians, one of the best too. For this use, that which is purest, lightest, most transparent, simple, colourless, void of taste and smell, and which warms and cools fastest, and wherein herbs and pulse boil and yield their virtues soonest, is to be preferred. River or running water is next in purity to snow or distilled water; and for domestic purposes superior to both, in having less putrescent matter, and more fixed air. Such water, however, is to be chosen as runs in a clear stream through a rocky or stony channel: That which passes over mud, clay, or mossy ground, being impregnated with a part of these substances. River waters generally
putresfy

putrefy sooner than those of springs: During the putrefaction, they throw off a great part of their heterogeneous matter, and at length become sweet again, and purer than at first. River waters, that are remarkable for their cold and chilly quality, are to be avoided.

Spring water is commonly impregnated with a small portion of neutral salt, extracted from the different strata or beds of earth through which it flows. It is much used for domestic purposes, and on account of its coolness is an agreeable drink; but as it is generally somewhat hard, it is inferior to that which has run a considerable way in a channel. As a medicine, water is found, internally, a powerful febrifuge; and excellent against colds, coughs, the stone, scurvy, &c.

Water putrefying by stagnation is extremely dangerous to health. Thus in the holds of ships, the bilge-water, if the ship is tight, and the water not pumped out often, soon becomes so extremely poisonous as frequently to suffocate those seamen who venture down to cleanse the pumps when they are clogged with filth; and also to affect persons at a distance with violent head-achs, cold sweats, and frequent vomitings, which continue more or less, in proportion to the distance from the well of the ship when the injury was received, and the degree of putrefaction in the water and air. Rain water, by being impregnated during its passage through the air with a considerable quantity of putrescent matter, is rendered superior to any other in fertilizing the earth. Hence also it is inferior, for domestic purposes, to spring or river-water, even if it could be readily procured: but such as is got from spouts placed below the roofs of houses (the common way of procuring it in this country) is evidently very impure, and becomes putrid in a short time. Rain-water should be cautiously collected, after the rain has continued for some time, so as to clear the air from insects, or other light bodies floating in it.

When a scarcity of water occurs at sea, Dr. Franklin has advised, that the mariners should bathe themselves in tubs of salt-water: for, in pursuing the amusement
of

of swimming, he observed, that, however thirsty he was before immersion, or plunging into the water, he never continued so afterwards: and that, though he soaked himself several hours in the day, and several days successively in salt-water, he perceived not, in consequence of it, the least taste of saltness in his mouth. He also further suggests that the same good effect might perhaps be derived from dipping the sailors' apparel in the sea; and expresses a confidence that no danger of catching cold would ensue.

As to the properties of tea, they are strangely controverted: the Eastern nations are at least as much possessed with an idea of their extraordinary virtues as the Europeans. The immoderate use of it, however, has been very prejudicial to many, who have thereby been thrown into the diabetes. In Europe, the infusions of tea-leaves have been extravagantly condemned by some, and commended by others. From the contradictory opinions even of medical writers on this subject, the natural inference seems to be, that they possess neither noxious nor beneficial powers in any very considerable degree. They seem, when moderately used, to be for the most part innocent: in some cases they seem to be salutary; in some they are apparently prejudicial. They dilute thick juices, and quench thirst more effectually, and pass off the natural emunctories more freely than more watery fluids; they refresh the spirits in heaviness and sleepiness, and seem to counteract the operation of inebriating liquors. From their manifest astringency, says Dr. Lewis, they have been supposed to strengthen, and brace up the solids; but this effect experience does not countenance; as it is in disorders, and in constitutions, wherein corroborants are most serviceable, that the immoderate use of tea is peculiarly hurtful; in cold indolent habits, dropsies, and debilities of the nervous system.

Dr. Lettsom has particularly enquired into the medical qualities and effects of tea; and having observed that infusions of Bohea and Green Tea contribute to preserve sweet some small pieces of beef immersed in them,

them, he infers that they possess an antiseptic power, when applied to the dead animal fibre, and from their striking a purple colour with salt of iron, he deduces their astringent quality. From other experiments, he concludes, that the activity of tea chiefly resides in its fragrant and volatile parts; and that if the use of it be beneficial or injurious to any particular constitution, it becomes so principally by means of this odorous fragrant principle. He apprehends that it is the safest course to use the infusion of the more *ordinary* kinds of this plant, which abound less with this fragrant principle. Or the tea may be boiled a few minutes, in order to dissipate this volatile part, which stands charged as the cause of those nervous affections that are said to be produced, or aggravated, by the use of this liquor. By this process may likewise be extracted more copiously, the more fixed, bitter, and stomachic parts of this vegetable.

The Chinese are always taking tea, especially at meals; it is the principal treat with which they regale their friends. The most moderate take it at least three times a day; others ten times, or more; and yet it is computed that the consumption of tea among the English and Dutch is as great in proportion as among the orientals.

After all that has been said upon the subject, tea is, perhaps, less injurious than many other infusions of herbs, which, besides a very slight aromatic flavour, have very little stypticity or astringency to prevent their relaxing debilitating effects. So far therefore tea, if not *too fine*, if not drunk *too hot*, nor in too great quantities, is perhaps preferable to any other known vegetable infusion. And if we take into consideration, likewise, its known enlivening energy, our attachment to it will appear to be owing to its superiority in taste and effects to most other vegetables.

Very different accounts have been given of the medicinal qualities of coffee. To determine its real effects on the human body, Dr. Percival has made several experiments, the result of which he gives in the following words:

words: "From these observations we may infer, that coffee is slightly astringent, and antiseptic; that it moderates alimentary fermentation, and is powerfully sedative. Its action on the nervous system probably depends on the oil it contains; which receives its flavour, and is rendered mildly empyreumatic, by the process of roasting. The medicinal qualities of coffee seem to be derived from the grateful sensation which it produces in the stomach, and from the sedative powers it exerts on the *vis vite*. Hence it assists digestion, and relieves the head-ach; and is taken in large quantities, with peculiar propriety, by the Turks and Arabians; because it counteracts the narcotic effects of opium, to the use of which those nations are much addicted. In delicate habits, it often occasions watchfulness, tremors, and many of those complaints which are denominated nervous. It has been even suspected of producing palsies; and from my own observation, I should apprehend, not entirely without foundation. *Stare* affirms, that he became paralytic by the too liberal use of coffee, and that his disorder was removed by abstinence from that liquor.

The following curious and important observations are extracted from a letter to a friend, by Sir John Pringle. Coffee is the best abater of the paroxysms of the periodic asthma that I have seen. The coffee ought to be of the best Mocco, newly burnt, and made very strong immediately after grinding it. I have commonly ordered an ounce for one dish; which is to be repeated fresh after the interval of a quarter or half an hour; and which I direct to be taken without milk or sugar. The medicine in general is mentioned by Musgrave; but I first heard of it from a physician, who having once practised it in Litchfield, had been informed by the old people of that place, that Sir John Floyer, during the latter year of his life, kept free from, or at least lived easy under, his asthma, from the use of very strong coffee. This discovery, it seems, he made after the publication of his book upon that disease." Since

the receipt of that letter, I have frequently directed coffee in the asthma with great success.

The changes water is liable to, and the different forms it appears under, are very numerous: sometimes as ice, then as a vapour, then as a cloud, shower, snow, hail, fog, &c. We may add, that the purest waters soonest freeze; hence ice is purer than the water which remains unfrozen. Bartholine says, that if the ice of sea-water be thawed it loses its saltness; accordingly the thawed ice of sea-water is often used in Amsterdam for brewing. Captain Cook, in his Voyage round the World, was furnished with fresh water from the melting of the ice which was found floating in the sea; and this water, he says, was not only fresh, but soft and wholesome.

Sea-water has been found of excellent use against stumous swellings and obstructions of the glands, and different foulnesses of the skin. It has been given also in the true sea scurvy, and found to promote the cure, when assisted by proper vegetables. The dose of sea-water is from half a pint to a pint, which may be repeated every morning for some months. In these doses it gently purges the belly, promotes also the other excretions, and somewhat warms and strengthens the habit; in larger doses it excites vomiting. In scrophulous complaints, and for removing glandular swellings, the bark is, sometimes, advantageously joined with it. It is also serviceable in purging off gross humours, that have proceeded from intemperance, or an inactive life, and in cleansing the intestines of viscid mucus and worms.

This water, at first, is apt to occasion great thirst, which abates with the continued use of it, and may be palliated by sleeping immediately after it is drank. In some constitutions it produces immoderate heat, and, when used externally, an itching of the skin; and therefore in all inflammatory cases it is hurtful. These symptoms should be removed, previous to the use of it, by bleeding, purging, and a proper cooling treatment.

In many cases, bathing in the sea-water may be joined to the internal use of it; both as a gentle corroborant or strengthener, and as a repeller and antiseptic. Accordingly it is excellent in the scrophula or king's evil, in hard swellings, in the bite of a mad dog, in the rickets, in the leprosy and itch, in paralytic and scorbutic complaints, and many other cases. *Lewis's Mat. Med. Elliot on Min. Wat.* Drinking sea-water with wine, is said to prevent people from being sick at sea.

INTEMPERANCE.

THE construction of the human body points out the danger of intemperance. Health depends on the state of the solids and fluids, which enables them to perform the vital functions; and whilst these proceed regularly, we have nothing to complain of; but if they are disturbed, the health must certainly be impaired. Intemperance disorders the whole animal œconomy, hurts the digestion, weakens the nerves, impedes the operation of the different secretions, vitiates the humours, and occasions innumerable diseases.

Nature has given us variety of passions, and appetites for the propagation of the species, &c. Intemperance is the abuse of these passions; and moderation is their regulator. Nature is soon satisfied, but luxury has no bounds. Temperance or abstinence are equally despised by the drunkard and the epicure, till their constitution or circumstances oblige them to put a stop to their career. Then indeed, and not till then, they begin to be convinced of their error.

Nature delights in plain and simple food, and every animal, except man, obeys her dictates. Man alone riots at large, and ransacks the earth in search of luxuries for his own destruction. Nor is it in diet only that intemperance is pernicious; how soon is the strongest constitution destroyed, by the immoderate pursuit of carnal pleasures, and the excessive abuse of potent intoxicating liquors!—Strange, that the number of pre-

nature deaths, which are daily occasioned by intemperance, should have so little effect on the votaries of the bottle, and of the banquet.

The innocent too often feel the effects of this baneful attachment to excess: the lovers of riot and debauchery, consume their wealth in purchasing sensual gratification, and reduce their wretched offspring to beggary and disease. Families have even been extirpated by intemperance: the issue of intemperate parents are frequently short-lived, and inherit the diseases transmitted to them by the authors of their being.

Though the drunkard may survive an acute disease, those of a chronic kind he but seldom escapes. Strong liquors weaken the bowels, and spoil the digestion, destroy the power of the nerves, and bring on paralytic and convulsive disorders. They also inflame the blood, destroy its balsamic quality, and render it unfit for circulation: Hence obstructions, dropsies, atrophies, and consumptions of the lungs. Diseases of that kind, when produced by hard drinking, seldom admit of a cure.

With respect to immoderate intoxication, Mr. Parkinson recommends the following judicious method of procedure: "Where death, says he, appears to be
 "likely to follow intoxication from drinking of spirits,
 "endeavour, in the first place, to obtain a discharge
 "of the poison from the stomach, by an emetic, or
 "irritating the back of the gullet, and by washing the
 "stomach, by pouring down large portions of warm
 "water. Nor should the object of your attention be
 "now left; since after the first effects of the poison
 "have passed off, such a state of extreme weakness
 "may follow during sleep, as may, unless great care
 "be taken, end in death. If therefore, after having
 "been allowed to sleep a little time, the breathing be-
 "comes laborious, the pulse low, and the hands and
 "feet cold, he should be aroused for a minute or two,
 "and made to swallow a spoonful or two of warm
 "broth, or beef tea, and occasionally about thirty drops
 "of *sal volatile*, or twice as much of *lavender drops*,
 "in

“ in a table-spoonful of water ; whilst the circulation
 “ is kept up by rubbing the limbs with warm flannels.
 “ Another circumstance demanding attention is, the
 “ throwing up of the contents of his stomach during
 “ sleep, when, from the state of insensibility in which
 “ his feelings and powers are shrouded, although they
 “ may be forced into his mouth, he will not be en-
 “ abled to expel them, and may thereby perish from
 “ suffocation.”

He mentions another reason why a person in this state ought not to be deserted. “ If left to himself,” continues he, “ the head may fall into such a position, “ as by bending the neck too much, may occasion “ death, by directly preventing the passage of air into “ the lungs. On this account, never content yourself “ with putting any one in a state of intoxication *alone* “ in a carriage, for the purpose of conveying him to “ his home ; lest, when he arrives there, his family find “ him a breathless corpse ; the motion of the carriage “ being very likely to throw the head into that position, “ from which the mischief just pointed out, may be “ likely to proceed.” *Villager's Fr.* 68.

Habitual and perpetual drinking, though it may not often amount to intoxication, is highly pernicious ; the continual habit of soaking, as it is usually termed, keeps the vessels constantly full and upon the stretch, interrupts the different digestions, and brings on the gout, the gravel, &c. hypochondriacal disorders, and other symptoms of indigestion.

Drunkenness is productive of many other vices : there is hardly a crime so horrid that the drunkard will not perpetrate when under the influence of liquor. The following little tale is so applicable to the subject, that it will be a sufficient apology for its introduction. It appeared in a volume published about a century and a half ago ; but though the orthography may be deemed obsolete, the instruction it conveys is so important, that we fear we should weaken its effect by attempting to modernise the language :—“ Once uponne a tyme,
 “ the divelle was permitted to tempte a yong manne.
 “ Sathanne

“ Sathanne had noe sooner power gyven hym than hee
 “ didde appcere in the guyze of a grave bencher of
 “ Graie’s Inne, and didde tell himme that hee was
 “ impoweryd to compelle hys doing one of thease three
 “ thinges; eyther he shoulde morthere his fathere, lie
 “ wythe his mothere, or gette dronke. The yong
 “ manne, shockyd atte the two first propofycions, didde
 “ ymbrace the laste. He gotte verie dronke, and in
 “ that statte, havynge neyther the use of reasonne nor
 “ the dredde of sinne, he was guilty of both the una-
 “ turalle deeds hee hadde before soe shudderydde atte,
 “ and for hys naughtinesse, and wyckednesse, he was
 “ hangydde.”

Dr. Cheyne imputes most of the chronical diseases, the infirmities of old age, and the short lives of Englishmen, to repletion, or intemperance; and that they may be either prevented or cured by abstinence.

But if abstinence is not sufficient for the cure of diseases, yet it greatly assists the operation of medicines, and is a preventive against a multitude of dangerous disorders. Several writers relate extraordinary cures performed by it, and many instances of its extending the term of human life. The noble Venetian *Carnaro*, after every other method had been tried in vain, and his life was despaired of when he was only forty years of age, recovered his former health, and lived to the age of almost an hundred years, by the sole effect of abstinence; as he himself informs us in a book he published on that subject. It is, indeed, surprizing to what a degree of age the primitive Christians of the East, who retired from persecution into the deserts of Arabia and Egypt, lived healthful, and chearful, on a very little food. Cassian assures us, that the common allowance for twenty-four hours, was only twelve ounces of bread and mere water; and adds, that on this spare diet, Arsenius, tutor to the emperor Arcadius, lived an hundred and twenty years, and many others to nearly the same age. A man of the name of Laurence preserved his life to an hundred and forty years, by temperance and labour. And Spotswood mentions

mentions one Kentengen, who attained the age of one hundred and seventy-five years by means of abstinence.

The History of Mr. *Wood*, in the Medical Transactions, Vol. 2, page 261, is a remarkable instance of the very beneficial alterations which may be effected on the human body by a strict course of abstemiousness.

OF THE PASSIONS.

THE passions of the mind have great influence in the cause and cure of the diseases of the body; there is a reciprocal influence and connection between the mental and corporeal parts, that whatever injures the one, disorders the other, and whatever is beneficial to the one, is also beneficial to the other.

OF ANGER.

ANGER is a violent passion of the mind, consisting of a propensity to take vengeance on the author of some real or supposed injury done the offended party. Anger is either deliberative or instinctive; and the latter kind is rash and ungovernable, because it operates blindly, without affording time for deliberation or foresight. Bishop Butler very justly observes, that anger is far from being a selfish passion, since it is naturally excited by injuries offered to others as well as to ourselves; and was designed by the author of Nature, not only to excite us to act vigorously in defending ourselves from evil, but to interest us in the defence or rescue of the injured and helpless, and to raise us above the fear of the haughty oppressor.

Anger produces a violent stricture in the nervous and muscular parts, and for a time increases the tone of all the fibres; it quickens the pulse, and hurries respiration. The stomach and bowels suffer much by this passion; and sometimes the stricture on the gall-ducts

ducts or passages is such, that a jaundice is the consequence. Anger also produces hæmorrhages or bleeding from the nose, the lungs, or the hæmorrhoidal vessels, particularly in those who are exposed to these evacuations.

During the fit of anger, or its immediate effects, carefully avoid vomits and purges, though, if in consequence of anger, much bile is thrown into the duodenum, as soon as the patient is composed, a little rhubarb, with nitre, may be given, to determine it downwards, and abate its acrimony.

Anger ruffles the mind, distorts the countenance, makes the blood circulate too rapidly, and destroys the whole vital and animal functions. It often produces fevers, and other acute diseases, and sometimes sudden death. Anger is extremely pernicious to the delicate, and those of weak nerves. Resentment, which may properly be said to be bred of anger, preys upon the mind, and occasions the most obstinate chronic disorders. Forgiving injuries promotes the peace of society, and greatly conduces to our health, ease, and felicity. All violent gusts of anger should be avoided, as the most deadly poison.

Add to this, the indecency of extravagant anger; how it renders us, while it continues, the scorn and sport of all about us, of which it leaves us, when it ceases, sensible and ashamed; the inconveniences, and irretrievable misconduct into which it has sometimes betrayed us; the friendships it has lost us; the distresses and embarrassments in which we have been involved by it; and the fore repentance which it frequently occasions.

Attend to the precept, "Be ye *angry*, and sin not." It becomes sinful, however, and contradicts the rule of Scripture, when it is conceived upon slight and inadequate provocations, and when it continues long. It is then contrary to the amiable spirit of charity, which "suffereth long, and is not easily provoked." Hence these other precepts, "Let every man be slow to anger;" and "let not the sun go down upon your wrath."

These

These precepts, and all reasoning indeed upon the subject, suppose the passion of anger to be within our power: and this power consists not so much in any faculty we have of appeasing our wrath at the time, as in so regulating our minds by habits of just reflection, as to be less irritated by impressions of injury, and to be sooner pacified.

Those who value health, should endeavour at all times, to preserve calmness and serenity of mind. A tranquil disposition is devoutly to be wished. To forgive injuries not only preserves us from the ferocious passion of anger, and its shocking effects upon the human frame; but renders us, in some degree, candidates for a better life.

OF GRIEF.

THE influence of this passion on the body is very great, so as often to destroy all appetite and desire of meat, either by inspiring the object with a disrelish for life, or by a mechanical instinct; because food taken at such a time makes but bad nourishment; fitter to corrupt the blood than to prolong life; on which account it is assigned as a physical cause for the fasting practised among the Heathens.

Grief diminishes the bodily strength in general, and particularly the force of the heart and circulation; as appears by the frequent sighs, and deep respirations that attend it, which seem to be necessary exertions in order to promote the passage of the blood through the lungs. It diminishes perspiration, obstructs the menstrual discharge, produces paleness of the skin, and scirrhus of the glandular parts. It aggravates the scurvy, and the malignity of putrid and contagious distempers, and renders people more apt to receive the infection of them. When it comes on suddenly, and in a great degree, it causes a palpitation of the heart, and renders the pulse irregular. Blindness, gangrene, and sudden death have followed the excess of

this passion. Its effects of changing the colour of the hair are well known. This passion has been found to lessen perspiration and urine.

Grief, when it sinks deeply into the mind, often changes into a profound melancholy, preys upon the spirits, and wastes the constitution. The loss of our dearest relatives and friends cannot but create sorrow, and demand a sigh from the most obdurate bosom, but it would be highly criminal to indulge excessive grief, or to suffer it to be of long continuance. Many persons, indeed, make a merit of indulging sorrow, and think they are but doing justice to a deceased friend, when they peremptorily refuse all comfort and consolation; not considering that in so doing, they shew a disapprobation of the will of the Almighty, by acting inconsistently with reason, religion, and common sense.

Grief, indulged to excess, hurts all the functions of the body: the dejected cannot enjoy health. Those who would wish for long life, must be cheerful, pleasant, and good-humoured. The afflicted should mingle in the amusements and offices of life, and turn the attention frequently to new objects. To sit down and brood over our calamities, is both cowardly and immoral, we should endeavour to be contented with the lot assigned to us. Indolence nourishes grief; therefore we ought, under the severest trials, to discharge with double diligence the functions of our station, and associate with friends who are disposed rather to be merry than sorrowful. Innocent amusements help to dispel the gloom which misfortunes cast over us.

Grief relaxes the solids, slackens the motions of the fluids, and destroys the health: it particularly weakens the stomach and intestines, occasions flatulence, and every symptom of weakness. Opiates, if not given in large doses, are good cordials in this case. This destructive passion may, in general, be conquered at the beginning; but when it has gained strength, you may in vain attempt to remove it.

Affliction is not in itself a disease, but it produces many; for whatever excites envy, anger, or hatred,
 3. produces

produces diseases from tense fibres: as, whatever excites fear, grief, joy, or delight begets diseases from relaxation. Many chronical diseases spring from affliction. For a remarkable history of the effect of affliction, the curious reader is referred to *Hist. de l' Acad. Roy. des Scienc.* an. 1732.

OF THE OTHER PASSIONS.

THE due regulation of the passions contributes much to health and longevity. The animating passions, such as joy, hope, love, &c. when kept within proper bounds, gently excite the nervous influence, promote an equable circulation, and are highly conducive to health; while the depressing affections, such as fear, grief, and despair; produce the contrary effect, and lay the foundation of the most formidable diseases.

OF PERSPIRATION OR SWEATING.

PERSPIRATION is the evacuation of the superfluous juices of the body, through the pores of the skin. When this evacuation is copious enough to be perceived by the senses, as in sweat, it is called *sensible perspiration*; where it escapes the notice of the senses, as is the case in the ordinary state of the body, it is called *insensible perspiration*. The word *perspiration*, used simply, is to be understood of *insensible perspiration*. The vessels through which the perspiration is to be performed, lie obliquely open under the scales of the cuticle or scarf-skin.

The most considerable of these pores are the orifices of the ducts arising from the small glands; through these vessels there is continually transuding or passing a subtle humour, from every part of the body, and throughout the whole expanse of the skin. The matter evacuated this way is found, by certain experience, to be more than equal to that evacuated all the other ways;

that is by stool, urine, &c. M. Dodart, from a number of experiments made for thirty-three years successively, assures us, that we perspire much more in youth than in age. In some persons the perspiration is so copious, that they void very little of the coarser excrements, though they eat very heartily.

The benefits of insensible perspiration are so great, that without it, Borelli says, animal life could not be preserved. The general cause of perspiration is the circulation and heat of the blood. The great subtilty, equability, and plenty of matter thus perspired, its increase after sleep, &c. constitute the grand symptoms of a perfect state of health, and the chief means of preserving it. On the contrary, the departing from these is the first sure sign, and perhaps the original cause of diseases.

Perspiration is performed, preserved, and increased, by the viscera, vessels, and fibres; by motion or exercise as far as the first appearance of sweat; by sleep of seven or eight hours, (the body well-covered, yet not loaded with bed-cloaths;) chearfulness, light fermented, yet solid food, not fat; pure, not heavy air, &c. The contraries of all these, as also the increase of the other excretions, diminish, prevent, and deprave it. Hence we see the cause, effect, &c. of this perspirable matter, its use in preserving the parts soft and flexible, and in supplying what is lost; but chiefly in preserving the nervous papillæ moist, fresh, lively, and fit to be affected by objects, and to transmit their impressions.

Perspiration is also absolutely necessary, in the animal œconomy, for purifying the mass of blood, and discharging it of a number of useless heterogenous particles which might corrupt it. Hence it is, that upon a stoppage of the usual perspiration there arise so many indispositions, particularly fevers, agues, rheums, &c. Too much perspiration occasions weakness, swoonings, sudden death; too little, or none at all, occasions the capillary vessels to dry, wither, and perish. Hence also the larger emunctories come to be obstructed; hence

hence the circulation is disturbed, sharp humours retained; and hence putridity, crudity, fevers, inflammations, abscesses, or imposthumes.

Perspiration, says Dr. Bryan Robinson, is influenced by the passions of the mind: thus anger and joy increase, and fear and sadness lessen, both perspiration and urine. Anger causes a strong motion in the membranes of the heart, and thereby quickens the contraction and extension of the blood-vessels and separating ducts, and consequently increases the discharges of perspiration and urine; and that more or less, in proportion to the strength or continuance of the passion. In the passions of fear and sorrow, perspiration and urine are lessened by the depression of the activity of the soul under those passions.

Some have supposed that the perspiration of animal bodies, in a healthful state, has the same effect upon air that breathing has, by rendering it noxious. This is an opinion which Dr. Ingenhousz has deduced from some experiments: And Dr. Macbride, in his *Essays*, informs us, that having collected about two drams of sweat, and mixed it with six drams of lime-water, he found that the mixture immediately became turbid or muddy, and in a short time deposited a light sediment, like that afforded in similar circumstances by urine, and which effervesced, or fermented, as violently when spirit of vitriol was added. Whence he concludes, that air is thrown off from the fluids by perspiration as well as by urine. But Dr. Priestley, observing, that there is nothing we know of in the human frame which would lead any person to suspect that air ever issues from the skin, from various experiments maintains, that perspirable matter has no such effect upon the air, leaving it as wholesome or as fit for respiration as ever, as he concludes from the test of nitrous air. Hence he infers that it is only respiration, and not the perspiration of the body, that injures common air.

The sweat, says Dr. Fordyce, as far as we are capable of judging, from the small quantity that can be collected, contains nearly the same substances as the urine; only that, instead of the essential oil of the urinary

urinary passages, it is mixed with the sebaceous matter of the skin, which gives it a degree of whiteness, and a smell different from that of the urine.

The want of due attention to the causes of obstructed perspiration has frequently occasioned the loss of very valuable lives. One of the most common causes is catching cold: wet clothes are particularly dangerous: wet feet often occasion violent diseases: damp beds are to be dreaded, and avoided: damp houses are productive of bad consequences: by sudden transitions from heat to cold, perspiration is frequently obstructed. Drinking freely of cold water, or small liquor when a person is heated, is highly dangerous: drinking hot liquors in a warm room, and going immediately into the cold air, is almost equally so.

OF URINE.

THE urine, in the common state of the body, is a transparent brownish fluid, which, upon cooling, has a mucilaginous matter separated, capable of being redissolved in heat, which is called the separating mucilage. In health, this separating mucilage is generally in such quantity as to remain suspended in the urine after its separation, forming what has been called the cloud: It is sometimes totally absent in health, but much more frequently in diseases; sometimes it is in a quantity sufficient to carry the cloud to the bottom, and form a mucous sediment; and sometimes it falls down in a flaky powder, and forms a sediment, which is commonly of a brick-colour, and sometimes white. The sediment often takes place on the going off of acute diseases; but it also happens in health, and while diseases subsist in their full force, particularly when they affect the urinary passages, or parts which are near them.

Many diseases are prevented and cured by a free discharge of urine, and therefore it ought by all means, to be promoted; and whatever may have a tendency to obstruct it should be carefully avoided. The secretion

tion and discharge of urine are lessened by a sedentary life; by sleeping on beds which are too soft and warm; by eating food of a dry and heating nature; and drinking liquors of an astringent quality, as red port, &c. Those who imagine their urine is in too small a quantity, or who have any symptoms of the gravel, should avoid whatever may contribute to lessen the quantity of their urine, and have recourse to such things as promote that salutary discharge: Such as water drank plentifully, white wine drank in a morning; alkali salts of all kinds; sea-salt, nitre, borax, alum, tartar, sal ammoniac, whey, sour milk, lemon-juice, &c.

Aqueous or watery liquors are generally diuretic, especially if mixed with salt, and drank cold. Fermented liquors are the least diuretic of all; and the less so, as they are the fatter. Sharp, thin, sour wines, rhenish, &c. as also acid spirit of vinegar, salt, sulphur, vitriol, &c. asparagus, bitter almonds, smallage, eryngium, saffrafras, &c. are all diuretics.

If the urine be too long retained, it is not only re-forbed, or taken up again into the mass of fluids, but by stagnating in the bladder it becomes thicker, the more watery parts flying off, and those which are gross and earthy remaining behind. Hence the stone and gravel are generated and promoted.

A false delicacy has occasioned many incurable disorders: many lives have been lost, among the fair sex especially, by retaining their urine too long. When the bladder is too much distended, it sometimes wholly loses its power of action, and cannot retain or expel the urine properly. Delicacy is highly commendable, but it should not be carried too far: the manners and customs of the French females concerning these matters, though too gross to be imitated, ought certainly to cure us of being delicate to excess. Often have I seen with amazement and concern, a blushing female *stealing* into the temple dedicated to Cloacina, and return with as much apparent guilt in her countenance, as if she had committed a theft, or a crime of greater magnitude. This is too much!

PART

PART II.

OF FEVERS IN GENERAL.

A FEVER is a disease, or rather a class of diseases, whose characteristic is a preternatural heat felt through the whole body, or, at least, the principal parts thereof, attended with other symptoms. Sydenham defines a fever, a strenuous endeavour or effort to throw off some morbid matter that greatly incommodes the body.

All fevers are in their nature salutary, being the means used by nature to rid herself of something that offends or oppresses her, yet they are often fatal in the event; but that is rather to be attributed to the fault of the constitution than of the fever. Fevers are frequently cured by nature alone, and go off very happily only by the patient's abstinence, a quiet state, and keeping up the natural evacuations. In this manner great numbers recover, without the help of medicines: there are daily instances of persons, who, after catching cold, have all the symptoms of a beginning fever; but by keeping themselves warm, drinking diluting liquors, bathing their feet in warm water, &c. those symptoms have speedily disappeared, and the apparent danger has been prevented.

The most general causes of fevers are, certain passions of the mind, suddenly excited, the principal of which are fear, grief, and anxiety; unwholesome air; extreme degrees of heat and cold; retention of indigestible food in the stomach, &c. or suppression of usual evacuations; external or internal injuries; and the abuse of spirituous liquors.

In all fevers from an internal cause, three things are chiefly to be observed: first, an universal trembling, and then an increased heat, and quickness of pulse. A
fever

fever almost always begins with a coldness or shivering; and soon after, the pulse growing quicker, affords the primary diagnostic of a fever.

The general signs of a fever are, an accelerated progressive motion of the blood, distinguished by the quickness of the pulse; this is succeeded by an increased heat in the body, and immediately afterwards the tonic motion of the parts is either constricted or relaxed. This is visible in the face: in the first case, it becomes red and bloated; in the latter, thin and pale. These symptoms are succeeded by an immoderate thirst, and a loathing of every kind of food; want of sleep, or having only disturbed and unrefreshing sleep; and a peevishness or fretfulness of temper; with a neglect or inattention to the common business of life: a great loss of strength ensues, and an unwillingness to move; a sensation of pain in some part of the body; a very uneasy and difficult respiration, or breathing; a sweating more than usual; and, finally, a change in the urine, its colour being usually very high, and its consistence thicker than that of persons in good health.

When the fever advances gradually, the patient first experiences a kind of languor or listlessness, a sensation of soreness of the flesh or bones, heaviness, loss of appetite, and sickness, accompanied with a clamminess of the mouth: these symptoms are, after some time, succeeded by excessive heat, violent thirst, restlessness, &c.

In all fevers, the physician is to endeavour to make himself the servant and assistant of nature: what nature endeavours in the beginning and increase of the disease, is to prepare, dispose, and search the noxious matter; and in the course and decline of it, to disperse and evacuate the matter so prepared by the proper passages. The whole business of art is, therefore, to assist nature in these two efforts of secretion and excretion of the matter. The manner of doing this, in every particular species of fever, is given under their respective heads; but as we are treating of fevers in general, it may be proper here to give the method of treating

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them as fevers, without entering into the several subdivisions.

The remedies which are to be given to assist the secretion and preparation of the morbid, or diseased, matter, are the diluting and cooling liquors in general: such are, a sufficient quantity of warm and weak fluids, as the common barley-water, and the like; and teas made of the common herbs of sage, mint, balm, &c. Nothing is more likely to abate the heat, attenuate the humours, remove spasms and obstructions, promote perspiration, increase the quantity of urine, &c. in short produce every salutary effect in an ardent or inflammatory fever, than drinking plentifully of water, thin gruel, or any other weak diluting liquor, of which water is the basis. The necessity of such liquors is plainly indicated by the dry tongue, the parched skin, and the burning heat, as well as by the patient's extreme thirst. Many cooling liquors, very proper for patients in fevers, may be prepared from fruits, as decoctions of tamarinds, orange-whey, apple-tea, &c. Mucilaginous liquors might always be prepared from marshmallow roots, linseed, lime-tree buds, and other mild vegetables. These liquors, especially when acidulated, are highly serviceable and agreeable to the patient.

With these also are to be given the gentle resolvents, such as are able to break the thick and tough consistence of the humours. Of this kind are the temperate alexipharmic roots especially, as they are also endowed with a diuretic virtue: such are the roots of elecampane, pimpernel, butterbur, and the like. Scordium is also greatly recommended in this intention: these may be conveniently given in decoctions or infusions; and with these powders are to be given, composed of the absterfive and digestive salts, such as tartarum, vitriolatum, and the like, mixed with the absorbent powders of oyster-shells, crabs' claws, and the like. These should be first sated with lemon-juice, and then mixed with a little nitre, and with the before-mentioned salts, they make an excellent medicine.

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The method of suppressing fevers by means of cold, now commonly adopted, was practised by the ancients: they exposed their patients to cold air, and gave them cold water to drink. Fresh air is very salutary to a person in a fever, it removes his anxiety, cools the blood, revives the spirits, and is in every view beneficial. There ought, therefore, to be a constant stream of fresh air in his chamber, so as to keep it moderately cool. Air that has been repeatedly breathed, when the blood is inflamed, or the humours are in a putrid state, becomes unfit for respiration, and acquires a noxious quality.

Lassitude, or heaviness, is generally the consequence of a beginning fever; and this symptom evinces the propriety of keeping the patient easy, and, if possible, in bed: lying in bed relaxes the spasms, abates the violence of the circulation, and gives nature an opportunity of exerting her whole force to overcome the disease. The bed alone would often remove a fever in its early stage.

The patient, says Dr. Fordyce, is to be confined to his bed, where unnecessary exertion is avoided, and the heat is equable over the whole body. The bed-chamber is to be large, and heated when necessary by fuel, burning in an open fire-place; or cooled by sprinkling the floor with infusions, or distilled waters of some of the aromatic herbs.

All violent medicines are to be avoided in fevers; for nature usually attempts to do her office placidly and quietly in these cases; and such medicines violently disturb her motions, and often bring on mischiefs which she would wholly have avoided. For this reason, vomits, though they are by some given indiscriminately in all fevers, are to be very cautiously used; and there are, in reality, only a few fevers in which they can be allowed to be proper. In intermittents, vomits are never proper, except in tertians; and even in tertians, the patient may be disposed to evacuation by gentler means, and without the violent tumult which a vomit occasions in the body.

In all fevers, the drinking plentifully of warm and cold weak liquors is attended with many good consequences; the patient is always refreshed by it, the febrile heat is mitigated, rest is promoted, and the proper and necessary sweats encouraged. The symptoms of fevers are never to be so regarded as to prevent the due attention to the principal point, nor is the physician to be alarmed at them. Thirst, want of appetite, or want of sleep, are not to be attacked with particular medicines, but considered as mere symptoms which will hereafter go off of themselves; and uneasiness, or inquietness of mind, should have no other medicine than serious advice of the injury it will do. Sudden cooling of the body, in all fevers, is a dangerous thing, and ought to be avoided. The patient should swallow his liquids gently, not hastily.

Acids in general are by some much dreaded in fevers; but for this there is no real ground: on the contrary, in sanguineous fevers, during the time of the violent heat and immoderate thirst, they are found of the greatest use and benefit. Spirit of vitriol, or of sulphur, lemon-juice, and barbery-juice are all very beneficial; only in cases where there is a cough, the vitriolic acid is to be avoided, because it usually irritates that symptom; and lemon-juice, sweetened with sugar, alone is to be given.

The use of astringent medicines in fevers, though too common, is extremely improper; for in all these cases the secretions and excretions require open ways; but these are all obstructed by astringents, and violent symptoms, sometimes even death itself, are brought on by these means. But in stubborn intermittents, where the peccant matter is discharged, and yet these symptoms remain merely from their having become habitual, these astringents may be allowed of, and are indeed not only safe, but of the greatest use.

Nitre is found to be an admirable medicine in fevers in general; it agrees with all temperaments, but principally with the hot: when taken in solution with warm weak liquors, it gently opens the bowels; and when
given

given in powders, it more than all other things sheaths or obtunds the acrimony of the humours.

If the patient's spirits, in a fever, are low and depressed, he should not only be supported with cordials, but every method should be taken to cheer and comfort his mind, by conversing on subjects that are pleasant and agreeable, and cautiously avoiding every syllable that may create uneasiness. Every thing indeed that disturbs the imagination promotes the disease. In fevers, every person ought to be kept perfectly quiet, and not be permitted to hear or see any thing which might discompose the mind.

With some people, the very name of fever suggests the necessity of bleeding. Formerly indeed, in this country, most fevers were of an inflammatory nature; but true inflammatory fevers are now seldom to be met with. Sedentary occupations, and different modes of living, have so changed the state of diseases, that hardly one fever in ten requires the lancet. In low, nervous, and putrid fevers, which are now so common, bleeding is hurtful, as it weakens the patient, sinks his spirits, &c. Never bleed at the beginning of a fever, unless there are evident signs of inflammation. Bleeding, when necessary, is an excellent remedy, but it should never be performed wantonly.

Patients in a fever, though extremely thirsty, have seldom any appetite for solid food; they should not therefore be urged to take victuals. Much solid food, in a fever, oppresses nature, and, instead of nourishing the patient, feeds the disease. What food is taken should be small in quantity, and light and easy of digestion.

OF INTERMITTING FEVERS OR AGUES.

OF intermittent fevers, or agues, there are three species—The **TERTIAN**, or *Third Day* fever; the **QUARTAN**, or *Fourth Day* fever; and the **QUOTIDIAN**, or *Daily Fever*.

The intermitting fever is that which ceases, and returns alternately, at stated periods, and is also called an ague.

In intermittent fevers, the disease is more apt to recur, or return, at the end of forty-eight hours from the beginning of the former period, than at any other interval; such are called *Tertians*: Next to this, it is more apt to recur at twenty-four hours, when they are called *Quotidians*; or at seventy-two hours, when they are called *Quartans*; but there are instances of their recurring at all other intervals.

CAUSES. The genuine TERTIAN, or *Third Day Ague*, attacks men rather than women, young people rather than old, the lusty and active rather than the lazy and indolent. It is occasioned by effluvia from putrid stagnating water, by eating too much stone fruit, by a poor watery diet, damp houses, evening dews, lying on the damp grounds, watching, fatigue, depressing passions, and the like "But the cause," according to Dr. Cullen, "is the miasma of marshy places, and *that only*." Other physicians have taken in many more causes, almost every thing indeed which debilitates the body: but the doctor denies that any of these, though they may dispose the body for receiving the disease, or to augment it, can by any means produce it, without the concurrence of the marsh miasma.

SYMPTOMS. This disease comes on in a morning, or from breakfast to dinner-time. It begins with a remarkable shivering, increasing frequently to a kind of convulsive shaking of the limbs. The extremities are always cold, and sometimes remarkably so. The cold for the most part is first perceived about the loins, and from thence ascending along the spine, turns towards the pit of the stomach. Sometimes it begins in the first joint of the fingers and tip of the nose. Sometimes it attacks only a particular part of the body, as one of the arms, the side of the head, &c. This cold is preceded by a heavy and sleepy torpor, languor, and lassitude, which we are partly to ascribe to real weakness, and partly to mere laziness. To these symptoms
succeed

succeed yawning and stretching; after which the cold comes on as above described; not unfrequently with a pain of the back. To this succeed nausea and vomiting; and the more genuine the disease, the more certainly does the vomiting come on, by which a great deal of tough mucous matter, and sometimes bilious stuff, or indigested food is evacuated during the first paroxysms. In some, there is only a violent straining to vomit, without bringing up any thing; sometimes, instead of these symptoms, a diarrhæa, or looseness, occurs; and this chiefly in weak, phlegmatic, and aged people.

These symptoms having continued for an hour or two, the cold begins to go off, and is succeeded by a lassitude, languor, and flaccidity or feebleness of the whole body, but chiefly in the limbs, with an uneasy foreness as if the parts had been bruised; excepting in those cases where the nausea continues for a longer time. After this languor a heat comes on, the increase of which is generally slow, but sometimes otherwise, with a pain of the head, thirst, and bitterness in the mouth: the pulse is quick and unequal. As soon as this heat has abated, a little moisture, or sweat, is observed to break forth; not always indeed in the first, but always in the succeeding paroxysms. The whole paroxysm is scarce ever over in less than six hours, more frequently eight, and in violent cases extends to twelve hours; but that which exceeds twelve hours is to be reckoned a spurious kind, and approaching to the nature of continued fevers. All these symptoms, however, are repeated every third day, in such a manner that the patient is quite free from fever for at least twenty-four hours; the paroxysms return much about the same time, though sometimes a little sooner or later.

REGIMEN. While the fit continues, the patient should drink freely of water-gruel, weak camomile-tea, or orange-why; or, if his spirits are low, weak wine-why, sharpened with lemon-juice. All his drink should be warm, that it may assist in promoting the sweat,

sweat, and consequently shorten the paroxysm. Parkinson, however, observes, in his *MEDICAL ADMONITIONS*, that, "Although the sweat is, in general, "supposed to be sooner induced, by these drinks being "given *slightly warm*, yet it is not necessary that the "patient should be entirely debarred from the luxury "of a draught of *cold* toast and water." *Medical Admonitions*, p. 23.

On the subject of *intermitting fevers*, Mr. Parkinson differs in opinion, very materially, from Dr. Buchan. He makes the following quotation from *Buchan's Domestic Medicine*, in his *Medical Admonitions*:—"Intermitting fevers, under a proper regimen, will "often go off without medicine; and when the disease "is mild, in an open, dry country, there is seldom any "danger from allowing it to take its course; but when "the patient's strength seems to decline, or the paroxysms are so violent, that the life is in danger, "medicine ought immediately to be administered." *Domestic Medicine*. p. 149.

To these observations, Mr. Parkinson replies—"Surely much evil may be feared from a passage like "this, which is so likely to add to that supineness, with "which many are disposed to suffer the ravages of "disease."

Dr. Buchan afterwards says, "When the disease is "very irregular, or the symptoms *dangerous*, the patient ought immediately to apply to a physician." "But, advice like this, (*says Mr. Parkinson*), cannot "but be prejudicial, both to the patient and the physician: for if a patient is not to apply to a physician, "until the symptoms are *so violent* that his life is "brought into danger, the opportunity of obtaining "his recovery may be past by." *Medical Admonitions*, 20, 21.

Between the paroxysms, the patient should have nourishing food, but light, and easy of digestion: his drink should be small negus, acidulated with the juice of lemons or Seville oranges, and sometimes a little weak punch.

Dr. Temple

Dr. Temple recommends that, during the cold fit, the patient should be well covered with bed-clothes, should have warm bricks applied to his feet, and should have cordials and stimulants; and such means should be used as are likely to shorten its duration, for the subsequent hot fit and sweating are always in proportion to the degree and length of the cold. In the hot fit he should be kept cool, and cooling medicines and drinks should be given to moderate its violence. *Temple's Pract.* 4.

CURE. The genuine simple *Tertian*, unless improper medicines are administered, is generally very easily cured; nay, the vulgar reckon it of such a salutary nature, that after it they imagine a person becomes stronger and healthier than before. The treatment of all genuine intermittents, or agues, whether *Tertians*, *Quartans*, or *Quotidians*, being precisely the same, the general method of cure applicable to them all is here given, to which we may refer when we describe the others.

At the beginning of an ague or intermitting fever, when excessive heat, a delirium, &c. indicate an inflammation, bleeding may be proper: the intermittents which prevail in cold dry springs, are sometimes blended with an inflammatory disposition; but the Autumnal fevers are frequently combined with a principle of putrefaction, in which case bleeding would be improper. As the blood is seldom in an inflammatory state in intermitting fevers, this operation is seldom necessary.

But where considerable inflammation is apparent, bleeding will be necessary; if accumulations of bile, &c. emetics and purges must be given, which indeed in this disease should generally precede the use of other medicines; and if there is great debility, the system must be strengthened by a more generous diet, the use of wine, the cold bath, and exercise.

It is now, however, generally agreed among physicians, that very little preparation of the body is requisite previous to the administration of the bark, in intermitting fevers. It is sufficient to cleanse the sto-

mach and alimentary canal by an emetic or cathartic. Where the disease is attended with sickness or nausea, six or eight grains of ipecacuanha may be given: but where there are no symptoms of this kind, it is better to give a stomachic purge, as an ounce or two of tinctura sacra, or a few grains of pil. Rufi. These are to be administered in the intermission, immediately after the paroxysm hath ceased, so that their operation may be over before its return; and after their operation is completed, the bark may be given with perfect safety. If the paroxysm be moderate, we need not have recourse to the bark till another fit hath manifested the true nature of the disease: but if it proves severe, there is often an absolute necessity for administering the bark on the first intermission of the fever, and even with hardly any preparation of the patient.

The bark has been often observed to fail in removing intermittents, from not continuing the use of it for a sufficient length of time, from administering it in too small a dose, or from giving it in an improper form. It was a prevailing opinion that an ounce, or an ounce and a half of the bark, taken during the intermission, is sufficient to prevent the return of another paroxysm. But this is not always the case; for a severe fit will often attack a patient who has taken such a quantity. When this happens, the patient ought to persevere during the following intermissions, with an increase of the dose, till five or six ounces at least have been taken. The medicine ought not to be omitted as soon as one fit is stopped, but should be continued in a smaller dose at least ten days or a fortnight. Even for several months after the disease is entirely removed, it would be adviseable to take a little bark occasionally in damp weather, or during an easterly wind, to prevent a relapse. Where the intervals between the fits are short, as in quotidians and double tertians, from one to two drams of it ought to be taken every two or three hours.

The following simple method of taking the bark is commonly adopted:—Two ounces of the powder may

be divided into twenty-four doses, and made into bolusses with syrup of lemon, or mixed in a glass of red wine, a cup of camomile-tea, water-gruel, or any other drink that is more agreeable to the patient.

If the bark alone should not sit easy upon the stomach, it will be proper to join some aromatic with it; or it may be given in milk, in which vehicle it is often taken with the least inconvenience to the patient.

A cup of the following infusion, drank three or four times a day, will greatly promote the cure: Take an ounce of gentian root, half an ounce of calamus aromaticus, and as much orange-peel, with three or four handfuls of camomile flowers, and a handful of coriander seeds; bruise them together in a mortar, and use them in form of an infusion or tea. About half a handful of these ingredients may be put into a tea-pot, and a pint of boiling water poured on them; or two handfuls of the same ingredients may be put into a bottle of white wine; and a glass of it may be drank twice or three times a day.

All applications increasing the disease, rendering the hot fit irregular, or disturbing the natural periods, are to be avoided.

Care is to be taken not to waste the powers of the body unnecessarily, by evacuations or otherwise, through the course of the disease; and the strength is to be supported, when the symptoms of weakness come on.

Those who object to taking the bark in substance, may take it in decoction or infusion: an ounce of the bark in powder may be infused in a bottle of white wine for four or five days, frequently shaking the bottle, afterwards let the powder subside, and pour off the clear liquor. Let the patient drink a wine-glass of this three or four times a day, or oftener, as there may be occasion. If a decoction should be thought more agreeable, an ounce of the bark, and two drams of snake-root bruised, with an equal quantity of salt of wormwood, may be boiled in a quart of water, till it is reduced to a pint. To the strained liquor add an equal quantity of red wine; and a glass of it may be taken frequently.

The autumnal intermittents are more difficult to cure than the vernal ones. As patients are liable to relapse in this disease, it may be necessary to repeat, that the bark should be continued for some time after the paroxysms have ceased, and should be gradually left off. A relapse happens seldomer in the *Quartan*, than in the *Tertian* and *Quotidian*; and it generally happens on the fourteenth day from the last paroxysm; or some time within that period.

If the means above-mentioned fail of curing the disease, a change of air should be advised, as without it all the efforts of the physician are sometimes exerted in vain.

When children are afflicted with this disease, the bark may be rendered palatable by mixing it with distilled waters and syrup, and sharpening it with the elixir or spirit of vitriol. It may also be given in the form of a clyster. Dr. Lind recommends for an adult, half an ounce of the extract of bark, dissolved in four ounces of warm water, with the addition of half an ounce of sweet oil, and six or eight drops of laudanum, to be repeated every fourth hour, or oftener, as occasion shall require. The quantity of extract and laudanum must be diminished for children.

Children have been cured of agues by wearing a waistcoat with powdered bark, quilted between the folds of it; by bathing them frequently in a strong decoction of the bark, and rubbing the spine with strong spirits, or with a mixture of equal parts of laudanum and the saponaceous liniment. Professor Bergman, in his *Opuscula Physica & Chemica*, 1779, mentions several instances, in which the most obstinate intermittent fevers that have reigned in Sweden for some years past, and that would not yield to the bark, have been almost constantly removed by the artificial Seltzer-water, or other similar impregnations of water with fixed air.

The cold bath has been prescribed with success, as a strengthener to those who were recovering from obstinate intermitting fevers, to prevent a return of the disease. See *Dr. Huxham's Obs. on Air, &c.*

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To prevent agues, their causes must be avoided; and we shall recommend the following preventive medicine, which may be found useful to such as are obliged to live in low marshy countries, or who are liable to frequent attacks of this disorder. Take an ounce of the best Jesuit's bark, half an ounce of Virginian snake-root, and half an ounce of orange-peel; bruise them altogether, and infuse them for five or six days in a bottle of brandy, Holland gin, or any good spirit: then pour off the clear liquor, and take a wine-glass of it twice or three times a day. Those who do not choose it in brandy, may infuse it in wine. Chewing the bark is also found very salutary in this disease: Gentian root, or calamus aromaticus may also be chewed alternately for the same purpose, and will be found efficacious. All bitters, especially those which are warm and astringent, seem antidotes to agues.

Every thing which contributes to keep up the natural discharge, by the pores of the skin, and which gives strength and tone to the vessels, is useful in the cure of this disease; hence exercise must be extremely proper, since nothing tends more to produce these beneficial effects. The exercise should be of that kind to which the patient has been most accustomed; and taken in the open air, unless wet weather, or a damp situation, forbids it. Care must be likewise taken that it be not used to such a degree as to occasion much fatigue; since that, instead of restoring strength, must induce debility.

Agues, not properly cured, often degenerate into obstinate chronical diseases, as the dropsy, jaundice, &c. Great care should therefore be taken to have them radically cured, before the humours are vitiated, and the constitution injured.

Quotidians are frequently converted into *Tertians*, and *Tertians* into *Quartans*.

The empirical practice of those, who depend on amulets and charms for the cure of agues, is not of very dangerous tendency; any farther than as it tends to place the patient in a state of imaginary security, which

which induces him to waste that time, in which he might, by proper means, have gotten rid of the disease. There are indeed numerous instances, in which we have reason to suppose, that the force of strong expectation has produced such effects on the system, as have put off the paroxysm, and even cured the disease. There are also several histories of cases related, in which the cure of ague has been produced by sudden and violent affections of the mind: by a similar operation, perhaps, it is, that those remedies act, the taking of which occasions a great degree of horror and disgust; such is the frequently-mentioned remedy of swallowing a large spider, mashed, and formed into a bolus, or involved in its web.

Other remedies recommended by these practitioners are not so innocent; such as a large dose of gin, with the addition of pepper; or the sudden application of cold water to the whole surface of the body. Parkinson mentions a melancholy instance of the ill effects of the latter practice, which he witnessed in a young man, who had been for some time afflicted with an autumnal quartan. His words are these—"The good woman of the house, having purposely procured his removal out of the bed, suddenly threw over him a pail of cold water: the whole surface of the body directly had its florid hue changed for a livid purple; a considerable oppression of the chest, with other alarming symptoms, directly came on; and, notwithstanding the employment of the most powerful means to save him, he expired in a few hours." *Medical Admonitions*, p. 21.

THE QUARTAN,

OR, FOURTH DAY FEVER, OR AGUE.

CAUSES. The same general causes concur in producing this as in other intermittents, namely, marshy miasmata, and whatever can dispose the body to be easily

easily affected by them. Studious people, and those of a melancholic turn, are said to be particularly subject to Quartans; but what are the immediate causes which produce a return of the fits every *fourth day*, instead of every day, must doubtless lie for ever concealed, as depending upon the secret and inexplicable mechanism of the human body.

SYMPTOMS. Juncker informs us, that, the genuine Quartan keeps its form more exactly than other intermittents. The cold is less violent than in the Tertian; but is very perceptible, though it does not proceed to such a height as to make the limbs shake. It continues for about two hours, and is preceded and accompanied by a languor both of body and mind. There is seldom any vomiting, unless when the stomach is manifestly overloaded with aliment; neither is there any diarrhæa, the belly being generally rather bound, not only on the days on which the paroxysm takes place, but also on the intermediate ones. The heat, which slowly succeeds the cold, is less troublesome to the patient by its violence, than by the dryness of the skin, which is scarce ever moistened with sweat. This heat seldom continues longer than four or six hours, unless perhaps at the first or second paroxysm. It is also accompanied with a giddiness, and dull pain of the head. On the termination of the paroxysm, the patient returns to a middling state of health, and continues in that state for the rest of the intermediate days; only there remains somewhat of a loathing and a deep-seated pain, with a sensation like that occasioned by being bruised, &c. This fit returns every fourth day, and that precisely at the same hours, being very rarely postponed. The cold stage in this ague is longer and more violent than in the Tertian, but the paroxysm is shorter.

A simple Quartan, where there is no reason to dread any induration of the viscera, may very certainly admit of a cure; and the prognosis can never be unfavourable, except in cases of extreme weakness, or where the disorder has been unskilfully treated.

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The treatment of this is to be the same as that which is pointed out for the simple *Tertian*; to which the reader is referred.

THE QUOTIDIAN OR DAILY FEVER.

THE same general causes are to be assigned for the Quotidian, as for other intermittents. This kind seldom occurs, and is said to attack people of a phlegmatic temperament rather than any other; old persons rather than young; and women rather than men. It is treated like the *Tertian* and *Quartan*.

This kind of fever, or ague, generally comes on about six or seven o'clock in the morning, beginning with a great degree of cold and shivering, which continues for about an hour; and is frequently accompanied with vomiting, or spontaneous diarrhæa, or both. It is succeeded by a pretty strong heat, attended with thirst, restlessness, and pain of the head. When the heat abates a little, sweating usually follows, and the whole paroxysm rarely exceeds six hours. It returns every day, and almost always at the same hour, if not evidently disturbed.

OF THE ACUTE, ARDENT, AND INFLAMMATORY FEVER.

CAUSES. This fever is produced by perspiration suddenly stopped, exposure of the body to the cold air when heated, or to the sun's heat in summer; too much fatigue, excessive eating or drinking, violent passions of the mind, drinking cold water when hot: a full diet, with little exercise; lying on the damp ground, night-watching, and the like.

SYMPTOMS. This fever is generally introduced by lassitude, debility, shiverings, a feeling of the whole body as if it had been bruised; chillness and heat alternately succeeding each other, head-ache, pains in
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the back, thighs, arms, and legs: then come on burning heat, and thirst; a distension of the vessels on the surface of the body, particularly observable in the face and eyes, vertigo, nausea, vomiting, anxiety, and restlessness; delirium; a full, hard, quick pulse, and dry skin; the urine is high-coloured; the tongue dry, rough, and crusted: the blood, when drawn, strongly adhering, and covered with a whitish or yellowish crust. The persons most subject to this fever are those about the prime or vigour of life; especially such as live high, abound with blood, and whose fibres are strong and elastic. Though it makes its attacks at all seasons of the year, it is most frequent in the Spring and beginning of Summer.

The most dangerous symptoms are a delirium, laborious respiration, starting of the tendons, hickup, cold clammy sweats, and an involuntary discharge of urine.

This fever is distinguished from the nervous fever by the strength of the pulse, greater degree of heat and thirst, and acute pains, and from the mental functions being less disturbed; and from the putrid fever by the state of the blood when drawn, and the strength of the pulse.

This fever seems to have no critical time for its termination, either in recovery or death. When it is very violent, or very badly conducted, it sometimes proves fatal on the ninth day. Persons often die from the eighteenth to the twentieth; and sometimes about the fortieth day, after having been alternately better and worse. The general course of these fevers is determinable from the fourteenth to the thirtieth day.

REGIMEN. The regimen proper for this fever, should be such as is calculated to dilute the blood, correct the acrimony of the humours, allay the excessive heat, remove the spasmodic stricture of the vessels, and promote the secretions. The patient should therefore drink plentifully of diluting liquors, as water-gruel, clear whey, barley-water, balm tea, apple tea, &c. which may be sharpened by orange-juice, currant-jelly, raspberries, &c. Orange-whey, made by boiling

in milk and water a bitter orange sliced, or a lemon, a little cream of tartar, or a few spoonfuls of vinegar, till the curd separates, is an excellent cooling drink. Two or three spoonfuls of white wine may be added to the boiling liquor. If the patient be costive, an ounce of tamarinds, with two ounces of stoned raisins of the sun, and a couple of figs, may be boiled in three pints of water till it is reduced to a quart; and this liquor may be used at discretion. His diet should be spare and light, consisting chiefly of gruel, panada, roasted apples, toasted bread with currant jelly, &c.

He should be relieved by the admission of fresh air into his chamber, and by sprinkling it with vinegar, lemon-juice, or vinegar and rose-water, with a little nitre dissolved in it. His mouth should be often washed with a mixture of water, honey, and vinegar; and his feet and hands should be frequently bathed in lukewarm water, especially if the head be affected.

If the head appears to be disposed to be deranged, the body should be placed, as much as possible, in an erect posture. Animal food, of every kind, must be strictly refrained from, even in the form of broths; as well as all aromatic, spirituous, and even the weakest fermented liquors. The chamber should be kept as quiet as possible, and somewhat darkened. The patient should converse no more than is absolutely necessary; and every circumstance, likely to interest his mind, should be carefully kept from him.

CURE. Bleeding should be performed as soon as the symptoms of an inflammatory fever appear, and repeated at the distance of twelve, eighteen, or twenty-four hours, according to the symptoms, till the hardness and fulness of the pulse is sensibly abated: The quantity of blood drawn, however, must be in proportion to the strength of the patient, and the violence of the disease. If after the first bleeding the fever should rise, and the pulse become more frequent and hard, there will be a necessity for repeating it a second, and perhaps a third, or even a fourth time. Hæmorrhages, or bleedings from the nose, often occur in this fever,

fever, much to the relief and security of the patient. If the heat and fever be very great, forty or fifty drops of the dulcified, or sweet spirit of vitriol, may be made into a draught, with an ounce of rose-water; two ounces of common water, and half an ounce of simple syrup, or a piece of loaf-sugar; and this draught may be administered every three or four hours while the fever is violent; but once in five or six hours will afterwards be sufficient.

When the patient discovers an inclination to vomit, the efforts of nature should be assisted by weak camomile-tea, or luke-warm water. If the body be bound, a clyster of milk and water, with a little salt, and a spoonful of sweet oil or fresh butter in it, ought daily to be administered; and if this should fail, a tea-spoonful of magnesia alba, or cream of tartar, may be frequently put into the patient's drink.

A favourable issue to this disorder may be expected, if about the tenth, eleventh, or twelfth day, the pulse becomes softer, the tongue moister, and the urine begins to deposit a reddish sediment; but if, on the contrary, the spirits of the patient become languid, the pulse sinks and yet retains its hardness, and his breathing becomes difficult; with a stupor, trembling of the nerves, starting of the tendons, a swelling of the belly, wildness of the eyes, and constant raving, there is great danger. In this case blistering plaisters should be applied to the head, ancles, inside of the legs or thighs, as there may be occasion; and poultices of wheat-bread, mustard, and vinegar may be likewise applied to the soles of the feet; and the patient should be supported with cordials, as strong wine-whey, negus, sage-gruel with wine in it, &c.

A physician may be of use at the beginning of this disease, but his skill is often ineffectual afterwards. Nothing can be more unaccountable than the conduct of those who have it in their power, at the beginning of a fever, to procure the best medical assistance, yet put it off till things come to an extremity. Though physicians may assist nature, their attempts must ever

prove fruitless, when she is no longer able to co-operate with their endeavours.

The patient's body should be lightly covered in bed: the custom of loading him with bed-clothes, has many ill effects; it increases the heat of the body, fatigues the patient, and, instead of promoting, retards the perspiration.

Sitting upright in bed, if the patient can bear it, will have a good effect: it relieves the head, by retarding the motion of the blood to the brain. But this position ought never to be continued too long: and if the patient should be inclined to sweat, it will be safer to let him lie; care being taken to raise his head a little with pillows.

It is highly necessary to abstain from all opiates through these fevers, however much the patient may complain of pain or watchfulness. Indeed, if the fever be accompanied with a diarrhæa, which is not critical, the looseness is to be gradually checked by diascordium, after giving rhubarb, and endeavouring to turn the humours to the skin by the use of the diaphoretics, omitting the nitre, with the use of the white decoction for the common drink. When the patient is beginning to recover, he should avoid excess of food, drink, exercise, and company, for fear of a relapse; and if his digestion be bad, and he should be troubled with feverish heats, an infusion of Peruvian bark in cold water will be useful: and, when he has recovered his strength, he should take some gentle laxative; as an ounce of tamarinds, and a dram of senna, boiled for a few minutes in a pint of water, and an ounce of manna dissolved in the decoction. Afterwards, it should be strained, and a tea-cup full of it may be drank every hour till it operates. The dose may be repeated two or three times, five or six days intervening between each dose.

Dr. Fordyce, however, observes, that "if, when
"the fever is almost entirely gone off, the delirium
"from want of sleep continues, the system being greatly
"weakened, after all other means of procuring sleep
have

“have been tried and have failed, opiates may be used
 “sometimes with advantage: but their effects are very
 “precarious.” *Fordyce's Elements*, 173.

Dr. Cullen objects to the hypothesis of those, who are for leaving the cure of continued fevers to the operations of nature; because these operations are neither certain in themselves, nor are they so well understood as to enable us to regulate them properly; and it is likewise possible to supercede them by art. The plan, therefore, on which he proceeds, is, to form his indications of cure upon the means of obviating the tendency to death in fevers; and these he reduces to three. 1. To moderate the violence of re-action. 2. To remove or obviate the causes of debility; and, 3. to obviate or correct the tendency of the fluids to putrefaction.

This fever, after the general inflammation is conquered, ends sometimes in the violent fever, and in this case is to be treated in the same manner.

Such as are engaged in laborious employments, ought not to return to their labour too soon after recovering from a fever; they should rather indulge themselves in ease and quietness till their strength and spirits are sufficiently restored.

THE SLOW NERVOUS FEVER.

CAUSES. This fever is a consequence of contagion, received by means of some corrupted animal substance. It usually attacks persons of weak nerves, a lax habit of body, and a poor thin blood: And those who have suffered great evacuations, a long dejection of spirits, immoderate watchings, studies, fatigue, &c. Also those who have taken much crude unwholesome food, vapid impure drinks, or who have been confined long in damp foul air; who have broken the vigour of their constitutions by salivations, too frequent purging, immoderate venery, &c. Hence it appears that the disease consists principally in an extreme debility of the
 nervous

nervous system; for, when people are prepared for this fever, by having their nerves already weakened, the contagious particles immediately attack the nervous system, without so much affecting the state of the blood or juices; though the latter are greatly affected in the putrid malignant fevers.

This will be distinguished from the putrid fever, by its being attended with less heat and thirst, no bilious vomitings, less frequency of the pulse, and no symptoms of putrescency.

SYMPTOMS. Dr. Huxham's description of the nervous fever is the best that we have seen. According to him, the patient at first grows somewhat listless, and feels slight chills and shudders, with uncertain flushes of heat, and a kind of weariness all over, like what is felt after extreme fatigue. This is always attended with a sort of heaviness and dejection of spirit, more or less of a load, pain, or giddiness of the head; a nausea and disrelish of every thing soon follows, without any considerable thirst, but frequently with urging to vomit, though little but insipid phlegm is brought up. Though a kind of lucid interval of several hours sometimes intervenes, yet the symptoms return with aggravation, especially towards night: the head grows more giddy or heavy; the heats greater; the pulse quicker, but weak; with an oppressive kind of breathing.

A great torpor, or obtuse pain and coldness, affects the hinder part of the head frequently, and very often a heavy pain is felt on the top all along the *coronary suture*: this and that of the back part of the head, generally attend nervous fevers, and are commonly succeeded by some degree of delirium. The pulse during all this time is quick, weak, and unequal; sometimes fluttering, and sometimes for a few minutes slow; nay, even intermitting, and then with a sudden flush in the face, immediately very quick; and perhaps soon after surprisingly calm and equal; and thus alternately.

The

The tongue at the beginning is seldom or never dry or discoloured, but sometimes covered with a thin whitish mucus: at length, indeed, it often appears very dry, red and chapped, or of the colour of a pomegranate-rind; but this mostly at the close of the disease: yet, however dry the tongue and lips seem, the patient scarce ever complains of thirst, though sometimes of a heat in the tongue. Frequently profuse sweats pour forth all at once about the ninth, tenth, or twelfth day, commonly coldish and clammy on the extremities; oftentimes very thin stools are discharged, and then nature sinks apace; the extremities grow cold, the nails pale or livid. The delirium sometimes ends in a profound coma, or unconquerable propensity to sleep, and that soon in eternal sleep. The stools, urine, and tears, run off involuntarily, and denounce a speedy dissolution, as the vast tremblings and twitchings of the nerves and tendons are preludes to a general convulsion, which at once snaps off the thread of life.

In one or other of these ways are the sick carried off, after having languished for fourteen, eighteen, or twenty days; nay sometimes much longer. All persons grow deaf and stupid towards the end of this disease (some extremely deaf) though too quick and apprehensive at the beginning; insomuch that the least noise or light greatly offended them. Many from their immoderate fears seem to hurry themselves out of life, where little danger is apparent at the beginning: nay, some will not allow themselves to sleep, from a vain fear of dozing quite away; and others, from the vast hurry, anxiety and confusion they are sensible of in it, or at their waking.

The favourable symptoms are, a warm, gentle, universal sweat, unforced; the tongue keeping moist in the advanced state of the disease, delirium not appearing early, and being seldom present, the pulse rising and becoming fuller upon exhibition of cordials, eruptions about the mouth and ears, and a miliary eruption not preceded by, or attended with profuse sweating; and a gentle diarrhæa.

REGIMEN.

REGIMEN. In this disease the patient should be kept cool and quiet. The least motion fatigues him, and occasions weariness, and even faintings. His mind must be kept easy and chearful, by soothing and comforting him with the hopes of a recovery. In low fevers of this kind it is extremely hurtful to present gloomy objects to the patient's imagination. He must not be kept too low; his strength and spirits must be supported by nourishing diet and generous cordials; and therefore wine should be mixed with his sago, gruel, panado, falop, or whatever food he takes, according as the symptoms may require. Pretty strong wine-whey, or small negus sharpened with orange or lemon-juice, will be proper for his common drink. Mustard-whey is also very proper in this fever, and by the addition of a proper quantity of white-wine, may be made an excellent cordial medicine.

For the sake of variety, the patient may be allowed to drink of red wine negus, bottled cyder, perry, and particularly, if the patient entertains a desire for it, porter. Animal food should be avoided; unless the patient is anxious for it, when it will seldom do harm. But when the patient regains a desire for food, it will be best to begin with puddings of various kinds, shell-fish, &c. resuming his usual diet gradually, as he finds his health return.

Wine that is good and genuine is a very necessary and effectual medicine in this fever; patients have been recovered from the most dangerous state, by using in whey, gruel, and negus, a bottle or two of strong wine every day. The great aim in this disease is to support the patient's strength, by often giving him small quantities of the above, or other drinks of a warm and cordial nature. He must not, however, be overheated with liquor or clothes, and his food should be light, and given in small quantities.

CURE. We begin by cleansing the stomach with vomits, which given in the beginning often totally remove the disease. The effects of emetics in this fever, are proved by the authority of eminent writers, who had

had very great practice in these fevers, and especially by Lind. Stahl, at the conclusion of a case of this fever in his *Ratio Menendi*, in which they had produced wonderfully good effects, says, "From great experience in this fever, I can say, that, if a practitioner is called in, when some of the first symptoms come on, and before the fever is formed, it may generally be prevented by giving an emetic, by procuring stools, fomenting the lower extremities, and giving an opiate, and after that the bark."

Almost to this effect are the observations of Dr. Buchan. "Where a nausea, load, and sickness at the stomach prevail at the beginning of the fever," he says, "it will be necessary to give the patient a gentle vomit. Fifteen or twenty grains of ipecacuanha in fine powder, or a few spoonfuls of the vomiting julep, will generally answer this purpose very well. This may be repeated any time before the third or fourth day, if the above symptoms continue. Vomits not only clean the stomach, but by the general shock which they give, promote the perspiration, and have many other excellent effects in slow fevers, where there are no signs of inflammation, and nature wants rousing."

Those who cannot take a vomit, should have their bowels cleansed by a small dose of rhubarb, or an infusion of senna and manna. Bleeding is generally improper in this disease, but blistering is highly necessary: blistering plaisters may be applied at all times of the fever with great advantage; and if the patient be delirious, he ought to be blistered on the head or neck. Blisters, however, are more proper towards the beginning, or after some degree of stupor comes on; in which last case it will always be proper to blister the head.

Dr. Darwin recommends wine and opium in small quantities, repeated every three hours alternately; small electric shocks passed through the brain in all directions, and oxygen air, which, as powerful stimulants, must have a good effect.

Should the patient be costive through the course of the disease, a stool should be procured every other day, by a clyster of milk and water, with a little sugar; to which may be added, if the above does not operate, a spoonful of common salt.

If a violent looseness should come on, it may be checked by small quantities of Venice treacle.

If a miliary eruption happens, as it sometimes does, about the ninth or tenth day, great care should be taken not to retard nature's operation in this particular. It should not be checked by bleeding, or other evacuations, nor pushed out by a hot regimen; a kindly breathing sweat should not by any means be checked. In desperate cases, where the hickup and starting of the tendons have already come on, large doses of musk have been frequently administered, which have produced extraordinary good effects. It may be given to the quantity of a scruple three or four times a day, or oftener if necessary. Sometimes it may be proper to add camphire, and salt of hartshorn, as these have a tendency to promote perspiration and the discharge of urine: thus fifteen grains of musk, with three grains of camphire, and six grains of salt of hartshorn, may be made into a bolus with a little syrup, and given three or four times a day.

If the fever should happen to intermit, as it frequently does towards the decline, or if the patient's strength should be wasted, he should take half a dram or a whole dram of the bark, if the stomach will bear it, four or five times a day, in a glass of red port or claret. The bark may also be administered, with other cordials, in the following manner: take an ounce of Peruvian bark, half an ounce of orange-peel, two drams of Virginia snake-root, and one dram of saffron; let them be powdered and infused for three or four days in a pint of the best brandy: strain the liquor, and give two tea-spoonfuls of it three or four times a day in a glass of small wine or negus.

It is indeed generally admitted, that, towards the decline of the fever, where the sweats are abundant

and weakening, small doses of the tincture of the bark, with saffron and snake-root, are given with the greatest advantage, frequently interposing a dose of rhubarb to carry off the putrid colluvies in the first passages; which makes the remissions or intermissions that often happen in the decline of nervous diseases, more distinct and manifest, and gives a fairer opportunity of throwing in the bark; for in the proper exhibition of this medicine, we are to place our chief hope of curing both the nervous and putrid malignant fevers.

One thing must be observed with respect to the bark; that, when the skin and tongue are dry, it generally does harm; these circumstances must therefore be removed previous to its exhibition.

The most distressing symptoms in this disease are generally the head-ache, confusion, and restlessness: for the former, blistering the temples generally affords relief, and for the latter warm fomentations of the legs, and an opiate at bed-time. The patient will be frequently refreshed by cold acidulated liquids, by bathing his body with vinegar and water by means of a sponge, and wiping it perfectly dry afterwards.

OF THE PUTRID OR MALIGNANT FEVER.*

CAUSES. This fever is also called the Pestilential fever of Europe; as the cause of it, as well as that of the slow nervous fever, is an infection or contagion from some diseased animal body, or from corrupted vegetables; and therefore is very little, if at all, different from those pestilential disorders which have arisen after battles, when great numbers of dead bodies were allowed to lie above ground, and infect the air with their effluvia. This is confirmed by an observation of Forestus, who was eye-witness to a distemper of this kind, (which he calls a Plague) owing to the same

* Otherwise called the Violent, Putrid, Malignant, Gaol, Camp, Hospital, or Spotted Fever.

cause, attended with buboes and a high degree of contagion. The same author also gives an account of a malignant fever, breaking out at Egmont in North Holland, occasioned by the rotting of a whale which had been left on shore. We have a like observation of a fever affecting the crew of a French ship, by the putrefaction of some cattle which had been killed on the island of Nevis, in the West Indies. These men were seized with a pain in their head and loins, great weakness, and a disorder of the stomach, accompanied with fever. Some had carbuncles; and on others purple spots appeared after death.

This fever is also occasioned by foul air, and therefore it prevails in camps, hospitals, gaols, large populous close towns, and low marshy countries; warm sultry weather, with a moist atmosphere; unwholesome diet, as corrupted grain, putrid flesh or fish, and water which is become putrid by stagnation; a long continuance of animal food without a proper mixture of vegetables, whence sailors in long voyages, and the inhabitants of besieged cities, are peculiarly subject to this fever; and an excessive use of alkaline salts, and other medicines that dissolve the blood. The proximate, or immediate cause, is a dissolution of the blood, produced by putrid miasmata that are received into the lungs by respiration, into the stomach with the food, or being generated in some part of the body, are absorbed as from putrid ulcers, &c.

SYMPTOMS. This is a disease of the most dangerous nature, as, besides the extreme debility of the nervous system, there is a rapid tendency of the fluids to putrefaction, which, sometimes cuts off the patient in a few days; and, in the warm climates, in twelve or fourteen hours: or if the patient recovers, he is for a long time, even in this country, in an exceeding weak state, and requires many weeks to recover his former health.

The putrid fevers, according to Huxham, make their attack with much more violence than the slow nervous ones; the rigors are sometimes very great, though

though sometimes scarce felt; the heats much sharper and permanent; yet, at first, sudden, transient, and remittent: the pulse more tense and hard, but commonly quick and small; though sometimes slow, and seemingly regular for a time, and then fluttering and unequal. The head-ache, nausea, and vomiting are much more considerable even from the beginning. Sometimes a severe fixed pain is felt in one or both temples, or over one or both eye-brows; frequently in the bottom of the orbits of the eyes. The eyes always appear very dull, heavy, yellowish, and very often a little inflamed. The countenance seems bloated, and more dead-coloured than usual. Commonly the temporal arteries throb much; there is a troublesome noise in the ears, the breathing is laborious, and often interrupted with a sigh. A strong vibration also of the carotid arteries frequently takes place in the advance of the fever, though the pulse at the wrist may be small, nay, even slow; this is a certain sign of an impending delirium, and generally proceeds from some considerable obstructions in the brain.

Few or none of these fevers are without a sort of lumbago, or pain in the back or loins; an universal weariness or soreness is always felt, and often much pain in the limbs. Sometimes a great heat, load, and pain affect the pit of the stomach, with perpetual vomiting of black choler: the matter discharged is frequently of a very nauseous smell. The tongue, though only white at the beginning, grows daily more dark and dry; sometimes of a shining livid colour, with a kind of dark bubble at top; sometimes extremely black; and so continues for many days together; nor is the tinge to be got off many times for several days, even after a favourable crisis: at the height of the disease, it generally becomes vastly dry, stiff, and black, or of a pomegranate colour. Hence the speech is very inarticulate, and scarce intelligible.

The thirst, in the increase of the fever, is commonly very great, sometimes unquenchable; and yet no kind of drink pleases, but all seem bitter and mawkish: at
other

other times, however, no thirst is complained of, though the mouth and tongue are exceedingly foul and dry: this is always a dangerous symptom, and ends in a frenzy or coma. The lips and teeth are furred with a kind of black crust.

At the onset of the fever, the urine is often crude, pale, and vapid, but grows much higher coloured in the advance, and frequently resembles a strong lixivium, or citrine urine, tinged with a small quantity of blood: it is without the least sediment or cloud, and so continues for many days together: by degrees it grows darker; like dead, strong, high-coloured beer; and smells very rank and offensive.

In spotted fevers, the urine has often been found almost black, and the smell very offensive. The stools, especially in the decline of the fever, are for the most part intolerably fetid, green, livid, or black, frequently with severe gripes and blood. When they are more yellow or brown, the less the danger: but the highest when they run off insensibly, whatever their colour may be. It is also a very bad symptom when the belly continues tense, swollen, and hard, after profuse stools; for this is generally the consequence of an inflammation or mortification of the intestines. A gentle looseness is often very beneficial, and sometimes seems to be the only way which nature takes to carry off the morbid matter.

Sometimes black, livid, dun, or greenish spots appear, which always indicate a high degree of malignity; however, the more florid the spots are, the less danger is to be feared. It is also a good sign when the black or violet spots become of a brighter colour. The large, black, or livid spots are almost always attended with profuse hæmorrhages; and the small dusky brown spots, are not much less dangerous than the livid or black; though they are seldom accompanied with fluxes of blood.

Inflammatory and nervous fevers may be converted into those that are putrid and malignant, by too hot a regimen, or improper medicines. The duration of putrid

trid fevers is very uncertain; sometimes they terminate between the seventh and fourteenth day, and sometimes they continue for five or six weeks.

The most favourable symptoms are a gentle looseness after the fourth or fifth day, with a warm mild sweat. These, if continued for a considerable time, frequently carry off the fever, and should never be imprudently stopped. Small miliary pustules, appearing between the purple spots, are likewise favourable; as also hot scabby eruptions about the lips and nose; and the more hot and angry they are, so much the better. It is a good sign when the pulse rises after the use of wine, or other cordials, and the nervous symptoms abate; deafness towards the decline of the fever, is also frequently a favourable symptom, as are abscesses in the groin, or parotid glands.

The unfavourable symptoms are, an excessive looseness, with a hard swelled belly; large, black, or livid blotches breaking out upon the skin; aphthæ in the mouth; cold clammy sweats; blindness; alteration of the voice; a wild staring of the eyes; great difficulty of swallowing; inability to put out the tongue when desired; and a constant inclination to uncover the breast. If the sweat and saliva are tinged with blood, and the urine is black, or deposits a blackish sediment, the patient is in great danger. Starting of the tendons, and fetid involuntary stools, are frequently seen towards the close of the fever; and, when attended with lividity and coldness of the extremities, are certain tokens of approaching death.

REGIMEN. A small quantity of food or drink should be taken frequently, to support the spirits, and counteract the putrid tendency of the humours. The food must be light, as panada, or gruel, to which a little wine may be added, if the patient be weak and low; and it should all be sharpened with the juice of orange, the jelly of currants, or the like. The patient may also eat freely of ripe fruits, as currant tarts, roasted apples, &c. He ought frequently to be sipping small quantities

quantities of some of the acid-liquors, hereafter mentioned, or any others that may be more agreeable to his palate.

It is highly necessary in this disease that acids should be mixed with all the patient's food as well as drink. Orange, lemon, or vinegar-whey, ought to be drank by turns, according to the inclination of the patient. They may be rendered cordial by the addition of a proper quantity of wine. If the patient is very low, he may frequently drink of an equal quantity of wine and water, sharpened with orange or lemon-juice. A glass of pure wine may indeed be often allowed. Rhenish wine is in general to be preferred, but if the body be open, red port or claret should be given. Camomile-tea, if the stomach will bear it, is very proper in this disease. It may be sharpened by the addition of ten or fifteen drops of the elixir of vitriol to every cup. The patient should be kept cool, quiet, and easy: the least noise will affect his head, and the least motion fatigue him.

But it may be necessary to add, with respect to the use of wine, that, although it be absolutely necessary during the continuance of this fever; and that, in such quantities, as to render it surprising how considerable a portion may be taken, without producing any of those effects which would have proceeded from even a much less quantity, if taken by the same person when in health; yet, as soon as the fever has left the patient, much caution becomes necessary in the use of it, since very disagreeable circumstances may follow from the free use of it at this time. Several instances have been seen, where patients just recovered from this fever, during which they had swallowed, with salutary effects, considerable quantities of wine, have, upon drinking only a few glasses during their convalescent or recovering state, experienced the return of a considerable degree of febrile heat, and even of delirium; nor have these consequences been either soon or easily removed.

Care should be taken to prevent the air from stagnating in the patient's room, to keep it cool, and frequently

quently to renew it, by opening the doors and windows of some adjacent apartment. Besides the admission of fresh air, the use of vinegar, verjuice, juice of lemon, Seville-Orange, or any kind of vegetable acid, is highly necessary. With some of these, the floor, the bed, and every part of the room should frequently be sprinkled.

We are indeed to remove all occasional or exciting causes, by placing the patient where he will have the purest, coolest air; by removing every thing that can retain or communicate putrid effluvia; at the same time impregnating the air of the room with acid, aromatic steams, produced by boiling vinegar, burning myrrh, frankincense, rosin, pitch, and tar; and whatever will increase the heat of the body must be avoided. The bed-linen and patient's linen should be changed daily where it can be done.

Fresh peels of lemons or oranges should not only be laid in different parts of the room, but often held to the patient's nose. The constant use of these acids, would prove very refreshing to the patient, and tend to prevent the infection from being communicated to those about him.

CURE. Distempers of the putrid kind never arise without an infection received, from some quarter or other; consequently the methods of prevention must evidently be reduced to two general heads. 1. To avoid receiving the infection into the body; and 2. To put the body in such a situation as may enable it to resist the infection when received.

Bleeding is seldom necessary, but often prejudicial in putrid fevers. If there are signs of inflammation, it may sometimes be permitted at the beginning, but the repetition of it generally proves hurtful.

Vomits have sometimes a good effect, when given at the beginning of this fever; but vomits must be used with caution, for though they may be of use by way of prevention, yet in the advanced state of the disease, when the patient has all along complained of a sickness at the stomach, they are evidently unsafe.

Blistering plaisters should be cautiously used in these fevers: they may sometimes be useful, in the early stages, when the spots suddenly disappear, the pulse sinks, and a delirium approaches; and then they may be applied to the head, and inside of the legs or thighs; but when there is any reason to apprehend a gangrene from the use of blisters, warm cataplasms or poultices of mustard and vinegar may be applied to the feet.

Should the patient be troubled with a vomiting, a dram of the salt of wormwood, dissolved in an ounce and half of fresh lemon-juice, and made into a draught, with an ounce of simple cinnamon water, and sweetened with sugar, may be given, and repeated as there may be occasion.

In the most dangerous species of the putrid fever, accompanied with purple, livid, or black spots, the Peruvian bark must be administered. When joined with acids, it sometimes proves successful even in cases where the spots had the most threatening aspect. But, for this purpose, it must be given in large doses, and persisted in.

The most effectual method of administering the bark is in substance. Mix an ounce of the powder with half a pint of water, and half a pint of red wine. Let it be sharpened with the elixir, or the spirit of vitriol, to add to its efficacy, and render it easier to the stomach. Two or three ounces of the syrup of lemon may be added, and two table spoonfuls of the mixture taken every two hours or oftener, if the stomach will bear it.

If a violent looseness comes on, the bark should be boiled in red wine, with a little cinnamon, and sharpened with the elixir of vitriol. Plenty of acids, and medicines that promote a gentle perspiration, are very beneficial in this looseness.

If the glands swell, their suppuration should be promoted by the application of poultices, and, as soon as there is any appearance of matter in them, they should be laid open, and the poultices continued. Ulcerous sores, of a livid gangrenous appearance and putrid smell,

smell, which break out in the decline of this fever, may be gradually healed by the plentiful use of Peruvian bark and wine, sharpened with the spirits of vitriol.

For preventing putrid fevers, a strict regard to cleanliness, a dry situation, sufficient exercise in the open air, wholesome food, and a moderate use of generous liquors, may be recommended. The infection also ought to be carefully avoided; and a person who is apprehensive of having caught it, should immediately take a vomit, and work it off by drinking plentifully of camomile-tea; and use for his common drink an infusion of the bark and camomile-flowers, with strong negus, or a few glasses of generous wine.

Sir John Pringle observes, that the plague, and other pestilential fevers, hot scurvies, and dysenteries, have very much abated in Europe within this last century; a blessing we can ascribe to no other second cause more than to the improvement of every circumstance relating to cleanliness, and to the more general use of antiseptics. Greens and fruit are also more commonly used, and salted meats make a much less part of our diet than it did formerly. To which may be added, the more general consumption of tea and sugar, which are no inconsiderable antiseptics. With respect to the contagious nature of all putrid disorders, he is of opinion that the putrid effluvia, received into the blood, have a power of corrupting the whole mass; of which he conceives the revolution of the blood, and sometimes even its smell in the advanced state of a malignant fever, the offensiveness of the sweats and other excretions, the livid spots, blotches, and mortifications incident to this distemper, to be sufficient proofs.

As it may afford comfort to parents to learn that infants are not so liable to fevers as adults; the opinion of Dr. Underwood on that subject, is here inserted.

The doctor has observed, for many years, as well in the hospital, as in private practice, that infants do not readily take common fevers, though exposed, for a long time, to that contagion which has appeared to

affect adults around them. He also observes, that every physician attending lying-in hospitals, must not only have known many infants suckled, without injury through the whole stage of bad fevers, from which mothers have recovered; but also, in other instances, sucking greedily within an hour or two of their mother's death.

THE HECTIC FEVER.

DESCRIPTION. The hectic fever is reckoned by Dr. Cullen to be merely symptomatic, which seems very probable as it always accompanies absorption of pus into the blood, from inward suppurations, or indeed from such as are external, provided they are very large, or of a bad kind.

According to Dr. Heberden, who has given an excellent description of this disorder, the appearance of the hectic fever is not unlike that of the general intermittent; from which, however, the disease is very different in its nature, as well as infinitely more dangerous. In the true intermittent, the three stages of cold, heat, and sweat, are far more distinctly marked, the whole fit is much longer, the period which it observes is more constant and regular, and the intermissions are more perfect than in the hectic fever. For in the latter, even in the clearest remission, there is usually a feverish quickness perceptible in the pulse, which seldom fails to exceed the utmost limit of a healthy one, by at least ten strokes in a minute.

The chillness of the hectic fever is sometimes succeeded by heat, and sometimes immediately by a sweat. The heat sometimes comes on without being preceded by any remarkable chillness; and the chillness has been observed to go off without being followed either by heat or sweat. The duration of these stages is seldom the same for three fits successively; and, as it is not uncommon for one of them to be wanting, the length of the whole fit must vary much more than in the true intermittent; but in general it is much shorter.

Dr.

Dr. Heberden informs us, that the hectic fever will return with great exactness, like an intermittent, for two, or perhaps three fits, but that he does not remember ever to have known it keep the same period for four fits successively. The paroxysm will sometimes keep off for ten or twelve days; and at other times, especially when the patient is very ill, it will return so frequently on the same day, that the chillness of a new fit will immediately follow the sweat of the former. It is not uncommon to have many threatenings of a shivering return on the same day; and some degree of drowsiness usually attends the cessation of a fit.

In a true intermittent, the urine is clear in the fits, and turbid or cloudy in the intervals; but in the hectic fever it is liable to all kinds of irregularity. It will perhaps be clear or turbid in both stages; or turbid in the fits, and clear in the intervals; and sometimes, as in a true intermittent, clear during the fever, and thick at the going off.

Hectic patients frequently complain of pains like those of the rheumatism, which are felt by turns in almost every part of the body, or return constantly to the same part. These pains are often at a great distance from the seat of the principal disorder, and seemingly without any peculiar connection with it: they are so violent in some patients, as to require a large quantity of opium. As far as Dr. Heberden has observed, they are common where the hectic arises from some ulcer open to the external air, as in cancers of the face, breast, &c. Joined with this fever, and arising probably from one common cause, he has seen swellings of the limbs, neck, or trunk of the body, rise up almost in an instant, as if the part was suddenly grown fatter. These swellings continue for several hours, but are not painful, hard, or discoloured.

He says he has seen this fever attack those who seemed in tolerable health, in a sudden and violent manner, like a common inflammatory fever; and, like that also, bring them into imminent danger; after which it has begun to abate, and afford reasonable hopes

hopes of recovery. But, though the danger might be over for the present, and but little of a fever remain, yet that little has soon shewed that it was kept up by some great mischief within, and proving unconquerable by any remedies, has gradually undermined the health of the patient, and never ceased but with his life. This manner of its beginning is, however, very extraordinary; it much more frequently dissembles its strength at first; and creeps on so slowly, that the patients, though not perfectly well, hardly think themselves ill for some months; complaining only of being sooner tired with exercise than usual, of want of appetite, and falling away. But, gentle as these symptoms may seem, if the pulse be quicker than ordinary, so as to have the artery to beat ninety times, and perhaps one hundred and twenty times in a minute, there is great reason to be apprehensive of the event. In no disorder perhaps is the pulse of more use to guide our judgment than in the hectic fever; yet even here it is necessary to be upon our guard, and not trust entirely to this criterion; for one in about twenty patients, with all the worst signs of decay, from some incurable cause, which irresistably goes on to destroy his life, will shew not the smallest degree of quickness, or any other irregularity of the pulse, to the day of his death.

CAUSES. This fever will supervene whenever there is a great collection of matter formed in any part of the body; but it more particularly attends upon the inflammation of a hard or schirrous gland, and even upon one that is slight and only just beginning; the fever growing worse in proportion as the gland becomes more inflamed, ulcered, or gangrenous. And such is the lingering nature of those glandular disorders, that the first of those stages will continue for many months, and the second for many years.

Lying-in women, having sustained injury in delivery, generally die of this fever. Women near fifty, and upwards, are particularly liable to it: for, upon the cessation of their natural discharge, the glands of the breasts, ovaries, or womb, too frequently begin to grow
schirrous,

schirrous, and afterwards cancerous. The glandular parts of all the abdominal viscera are also disposed to be affected at this particular time, and become the seats of incurable disorders.

Dr. Heberden informs us, that the slightest wound by a fine-pointed instrument, has been known, upon some occasions, to bring on the most alarming symptoms, and even death itself: for not only the wounded part will swell and be painful, but, by turns, almost every part of the body; and very distant parts have been known to come even to a suppuration. These symptoms are always accompanied with this irregular intermittent, which lasts as long as any of them remain. The symptoms and danger from some small punctures, with their concomitant fever, most frequently give way in a few days, though in some persons they have continued for two or three months, and in others have proved fatal.

The same medicines will not always suit a fever, which, arising from very different causes, is attended with such a variety of symptoms. A mixture of assa-fatida and opium, has, in some persons, seemed singularly serviceable in this fever, when brought on by a small wound; but in most other cases the principal, if not the sole attention of the physician must be employed in relieving the symptoms, by tempering the heat, by preventing both costiveness and purging, by procuring sleep, and by checking the sweats. If at the same time, continues Dr. Heberden, he put the body into as good general health as may be by air, exercise, and a proper course of mild diet, he can perhaps do nothing better than to leave all the rest to nature.

In some few patients, nature appears to have such resources as may afford reason for entertaining hopes of cure, even in very bad cases: for some have recovered from this fever, attended with every symptom of an abdominal viscus incurably diseased, after all probable methods of relief from art have been tried in vain, and after the flesh and strength were so exhausted as to leave

scarce any hopes from nature. In those deplorable circumstances, a swelling has arisen not far from the probable seat of the disorder, and yet without any discoverable communication with it: this swelling has come to an abscess; in consequence of which the pulse has soon returned to its natural state, as have also the appetite, flesh, and strength. What nature has performed in those extraordinary cases, Dr. Heberden says he has often endeavoured to imitate, by making issues, or applying blisters near the seat of the disease; but he cannot say with the same success.

Dr. Heberden further informs us, that it seems at present the opinion of many practitioners, that the gangrenes will be stopped, and suppuration become more kindly, by the use of the bark; and therefore this remedy is always either advised or permitted in the irregular fever, joined with suppurations and gangrenes; but he declares he does not remember ever to have seen any good effect from the bark, in this fever, unattended with an apparent ulcer; and even in gangrenes it so often fails, that in successful cases, where it has been administered, there must be room for suspicion that the cure was owing to another cause. Dr. Heberden acknowledges, however, that he never saw any harm from the bark in these, or indeed in any other cases, except a purging or sickness, of no consequence, where it has happened to disagree with the stomach, or where the stomach has been loaded by taking the medicine too fast, especially in dry boluses, wrapped in wafer-paper.

Where all other means have proved ineffectual in hectic illnesses, a journey to Bath is usually proposed; but Dr. Heberden justly observes, that, besides the fatigue, and many inconveniencies of a journey to a dying person, the Bath waters are peculiarly hurtful in this fever; which they never fail to increase, and thereby aggravate the sufferings, and hasten the death of the patient.

THE MILIARY FEVER.

IN this fever, nature seems to be endeavouring to drive out the subtle morbid matter to the surface of the body, by increasing her secretory and excretory motions. It derives its name from the small pustules or bladders which appear on the skin, resembling in shape and size the seeds of millet. These pustules or pimples are either red or white, and sometimes both are mixed together; sometimes they are distinct, and sometimes in clusters.

Sometimes this is a primary disease, but more frequently a symptom of some other malady; as the small-pox, measles, ardent, putrid, or nervous fever, &c. In all which cases it is generally the effect of too hot a regimen or medicines.

CAUSES. This fever is sometimes occasioned by violent passions and emotions of the mind; by great evacuations, a weak watery diet, rainy seasons; by the immoderate use of cold, crude, and unripe fruits, impure water, and unwholesome provisions. It may also be occasioned by the suppression of any customary evacuation, as issues, setons, ulcers, the bleeding piles, or the menstrual flux.

It attacks both sexes, all ages and constitutions, but most frequently people of weakly and delicate constitutions. This disease, in child-bed women is often occasioned by great costiveness during pregnancy, and very frequently by their excessive use of green trash, and other improper things, in which pregnant women are too apt to indulge: but indolence and inactivity are the most general causes.

SYMPTOMS. This fever, when it is a primary disease, generally commences with a violent cold stage, succeeded by great heat, anxiety, and sighing; the heat soon increases, and produces a profuse sweat, preceded by a sense of pricking in the skin; and it has a peculiar strong disagreeable smell. The period of eruption is indeterminate; it seldom attacks the face,

but appears first on the neck and breast, and thence spreads all over the body. The patient is restless and sometimes delirious; the tongue appears white, and the hands shake, with often a burning heat in the palms; and in child-bed women the milk generally goes away, and the other discharges stop.

After the patient has experienced an itching or pricking pain under the skin, innumerable small pustules of a red or white colour begin to appear. The symptoms then generally abate, the pulse becomes fuller and softer, the skin moister; and the sweat, as the disease advances, has a more foetid smell; the oppression on the breast and spirits usually goes off, and the customary evacuations regularly return. Though the eruption appears at no fixed period, nor is of any regular certain duration, the pustules generally begin to dry and fall off about the sixth or seventh day from the eruption, occasioning a very troublesome itching in the skin.

The pustules usually come out on the third or fourth day, when the eruption is critical; but, when symptomatical, they may appear at any time of the disease.

When the pustules appear and disappear by turns, there is always danger; but when they disappear suddenly, and do not appear again, the danger is very great.

In child-bed women the pustules are commonly at first filled with clear water, afterwards they become yellowish. Sometimes those of a red colour are interspersed. When these only appear, the disease is named a rash.

If a diarrhæa comes on in the progress or decline of the disease, and is suddenly checked, it may occasion an apoplexy. In child-bed women a diarrhæa is a very dangerous symptom; and the change of the colour of the urine from a yellow to a pale colour is alarming: sleepiness is a favourable symptom.

REGIMEN. In this, and all other eruptive fevers, the chief aim is to prevent the sudden disappearing of the pustules, and to promote their maturation: the patient should therefore be kept in such a temperature

as neither too forcibly to push out the eruption, nor to cause it to retreat prematurely. The aliment and drink should be moderately nourishing and cordial, but neither strong nor heating: the patient's chamber ought to be kept moderately warm, and he should not be too much covered with clothes. It is also essentially necessary that his mind be kept cheerful and easy, as nothing causes an eruption to go in so much as fear, or the apprehension of danger.

The patient's food should be weak chicken broth, with bread, panada, sago, groat-gruel, &c. to a gill of which may be added a spoonful or two of wine. If his spirits are moderately high, his drink ought to be weak; as water-gruel, balm-tea, &c. A decoction of two ounces of the shavings of hartshorn, and the same quantity of far-saparilla in two quarts of water, sweetened with white sugar, may be used as his common drink. When the patient's spirits are low, and the eruption does not rise sufficiently, wine-whey, or small negus, sharpened with orange or lemon-juice, and made stronger or weaker at discretion, should be allowed.

When the miliary fever approaches towards a putrid nature, the patient's strength must be supported with generous cordials, joined with acids; and if the putrescence increase, the Peruvian bark must be administered: When the head is affected, the body should be kept open by emollient clysters.

CURE. The general rule for the treatment of this disease, will be to employ the cool regimen, supporting the system and removing debility by cordials, tonics, and nourishing diet; obviating and counteracting putrescency by the bark, wine, and antiseptics.

If the eruption should not rise, or if the spirits flag, the patient must not only be supported with cordials, but blisters must also be applied. Some recommend blisters through the whole course of this fever; but we would not recommend above one at a time, and that a small one. Where nature flags, and the eruption comes and goes, it may be necessary to keep up a stimulus, by a succession of small blisters. If the pulse, however, should sink remarkably, the pustules fall in, and

the head be affected, it will be necessary to apply several blistering plaisters to the most sensible parts, as the inside of the legs and thighs, &c.

All irritations of the bowels are as bad in these cases as in the small-pox or measles, and even the use of the most gentle clysters should be very sparingly admitted.

Bleeding can very rarely, if ever, be proper in this disease; and frequently does much injury, by weakening the patient, and depressing his spirits. It seems clear indeed, that this fever is often more of a putrid than of an inflammatory nature.

Though the miliary fever should be occasioned by too hot a regimen, as it frequently is in child-bed women, it would be dangerous to leave off that regimen suddenly, and have recourse to a very cool regimen and large evacuations.

If the disease proves tedious, or the recovery slow, the Peruvian bark is recommended, which may either be taken in substance, or infused in wine or water. Like other eruptive diseases, the miliary fever requires gentle purging, which should not be neglected as soon as the fever is gone off, and the strength of the patient will admit.

THE REMITTING OR REMITTENT FEVER.

THE Remitting fever comes on with nearly the same symptoms as the Intermittent, except that the cold and hot stages are not so violent: when they have continued some time, they go off, leaving an evident remission, whence the disease has its name, and return at uncertain irregular periods. This remission of the symptoms happens sometimes sooner and sometimes later, but generally before the eighth day: it is usually preceded by a gentle sweat, which seems to afford the patient much relief, but in the course of a few hours the fever returns.

CAUSES. These fevers prevail in low, marshy, and woody countries, abounding with stagnating water; but they prove most fatal in places where great heat
and

and moisture are combined, as they are then generally of a putrid kind. Though no age, sex, or constitution, is exempted from the attack of this fever, it chiefly seizes persons of a relaxed habit whose habitations are low and dirty, who take little exercise, and breathe an impure stagnating air.

SYMPTOMS. This fever is generally preceded by yawning, stretching, pain and giddiness in the head, with alternate fits of heat and cold. It is indeed impossible to describe all the symptoms of the disease, as they vary according to the season of the year, the constitution of the patient, and many other circumstances. Sometimes the bilious symptoms predominate, sometimes the nervous, and sometimes the putrid. Nor is a succession of each of these uncommon, or even a complication of them at the same time.

REGIMEN. The diet and medicine in these fevers, must be regulated by the predominant symptoms, whether they are inflammatory, nervous, or putrid. Whatever is of a heating quality should be avoided, as this fever is frequently changed into a *continual* by a hot regimen and improper medicines.

The patient ought to be kept cool, quiet, and very clean. A large apartment will be found very salutary for him, and it should be often ventilated by admitting fresh air at the doors or windows. Vinegar or lemon-juice should also be sprinkled on it, and the linen, bed-clothes, &c. should be frequently changed.

CURE. To cure this fever, a regular intermission should, if possible, be procured; and this intention may be promoted by bleeding, if there are any signs of inflammation; but when that is not the case, bleeding should not be attempted, as it will weaken the patient, and prolong the disease. A vomit however will seldom be improper, and is sometimes very serviceable: twenty or thirty grains of ipecacuanha may be administered for this purpose; and may be repeated once or twice at proper intervals, if the sickness or nausea continues. The body should be kept open by clysters or gentle laxatives, as weak infusions of senna and manna, small doses of lenitive electuary, cream of tartar,

tartar, stewed prunes, tamarinds, or the like ; but strong or drastic purges must be rejected.

When this fever is brought to a pretty regular or distinct intermission, the Peruvian bark may be given, and it will seldom fail to perfect the cure.

The best method to avoid the remitting fever, is to use wholesome and nourishing diet, to pay the strictest regard to cleanliness, to keep the body warm, to take sufficient exercise ; and in hot countries to avoid damp situations, night-air, and evening dews. Where it is endemical, the best preventive medicine is the Peruvian bark, which may either be chewed, or infused in brandy or wine, &c. Smoking tobacco is said to be very beneficial in marshy countries, to prevent the attacks of this and intermitting fevers.

PART III.

OF THE SMALL POX, CHICKEN POX, MEASLES, SCARLET FEVER, BILIOUS FEVER, PLURISY, &c.

THE SMALL POX.

SYMPTOMS. Of this disease there are two species,—the *Distinct*, and *Confluent*. In the *Distinct Small Pox*, the disease begins with an inflammatory fever. It generally comes on with some symptoms of a cold stage, and commonly with a considerable languor and drowsiness. A hot stage is soon formed, and becomes more considerable on the second and third day. During this course, children are liable to frequent startings from their slumbers ; and adults, if they are kept in bed, are disposed to much sweating. On the third day, children are sometimes affected with one or two epileptic fits. Towards the end of the third day the eruption commonly appears, and gradually increases during the fourth ; appearing first on the face, and successively on the inferior parts, so as to be completed over the whole body on the fifth day. From the third day the fever abates, and by the fifth it entirely ceases.

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The eruption appears at first in small red spots, hardly prominent, but by degrees rising into pimples. There are generally but few on the face; but even when more numerous they are separate and distinct from one another. On the fifth or sixth day a small vesicle, or bladder, containing an almost colourless fluid, appears on the top of each pimple: for two days these vesicles increase in breadth only, and there is a small pit in their middle, so that they are not raised into spheroidical or globular pustules till the eighth day. These pustules, from their first formation, continue to be surrounded with a circular inflamed margin, which, when they are numerous, diffuses some inflammation over the neighbouring skin, so as to give somewhat of a damask-rose colour to the spaces between the pustules.

As the pustules increase in size, the face swells considerably, if they are numerous on it; and the eye-lids particularly are so much swelled, that the eyes are entirely shut. As the disease proceeds, the matter in the pustules becomes by degrees, first more opaque or cloudy, then white, and at length assumes a yellowish colour. On the eleventh day the swelling of the face is abated, and the pustules seem quite full. On the top of each a darker spot appears; and at this place the pustule, on the eleventh day or soon after, is spontaneously broken, and a portion of the matter oozes out, in consequence of which the pustule is shrivelled, and subsides; while the matter oozing out dries, and forms a crust upon its surface. Sometimes only a little of the matter oozes out, and what remains in the pustules becomes thick and even hard. After some days, both the crusts and the hardened pustules fall off, leaving the skin which they covered of a brownish red colour; nor doth it resume its natural colour till many days after. In some cases, where the matter of the pustules has been more liquid, the crusts formed by it are later in falling off.

On the legs and hands the matter is frequently absorbed; so that at the height of the disease, these
pustules

pustules appear empty. On the tenth and eleventh days, as the swelling of the face subsides, a swelling arises in the hands and feet; but which again subsides as the pustules come to maturity. When the pustules are numerous on the face upon the sixth or seventh day, some uneasiness in the throat, with a hoarseness in the voice, comes on, and a thin liquid is poured out from the mouth. These symptoms increase with the swelling of the face; and the liquids of the mouth and throat becoming thicker, are with difficulty thrown out; and there is, at the same time, some difficulty in swallowing, so that liquids taken in to be swallowed are frequently rejected or thrown out by the nose. But all these affections are abated as the swelling of the face subsides.

The more exactly the disease retains the form of the distinct kind, it is the safer; and the more completely the disease takes the form of the confluent kind, it is the more dangerous. It is only when the distinct kind shews a great number of pustules on the face, or otherwise, by fever or putrescency, approaching to the circumstances of the confluent, that the distinct kind is attended with any danger.

There is not much danger in the mild distinct small pox, except when the patient is extremely loaded, especially about the head and throat. This disease sometimes lays the foundation of phthisis, or consumption, and obstinate optholmy, and frequently, by removing complaints that existed before, it improves the health and constitution.

In the *confluent* small pox all the symptoms above mentioned are much more severe. The eruptive fever particularly is more violent, the pulse is more frequent and more contracted. The coma, or drowsiness, is more considerable, and there is frequently a delirium. Vomiting also frequently attends, especially at the beginning of the disease. In very young infants, epileptic fits are sometimes frequent on the first days of the disease, and sometimes prove fatal before any eruption appears; or they usher in a very confluent and putrid
small

small pox. The eruption appears more early on the third day, and sometimes in clusters like the measles.

When the eruption is completed, the pimples are always more numerous upon the face, and at the same time smaller and less eminent. Upon the eruption the fever suffers some remission, but never goes off entirely; and after the fifth or sixth day it increases again, and continues to be considerable throughout the remainder of the disease. The vesicles formed on the top of the pimples appear sooner; and, while they increase in breadth, they do not retain a circular, but are every way of an irregular figure. Many of them run into one another, insomuch that very often the face is covered with one vesicle rather than with a number of pustules.

The vesicles, as far as they are any way separated, do not arise to a spheroidal or globular form, but remain flat, and sometimes the whole of the face is of an even surface. When the pustules are in any degree separated, they are not bounded by an inflamed margin, but the part of the skin that is free from pustules is generally pale and flaccid. The liquor in the pustules changes from a clear to an opaque or cloudy appearance, and becomes whitish and brownish, but never acquires the yellow colour, and thick consistence which appears in the distinct small pox. The swelling of the face, which only sometimes attends the distinct small pox, always attends the confluent kind: It also comes on more early, and arises to a greater height, but abates considerably on the tenth or eleventh day. At this time the pustules or vesicles break and shrivel; pouring out, at the same time, a liquor, which is formed into brown or black crusts, which do not fall off for a long time after. Those of the face, in falling off, leave the skin subject to a desquamation or scaling, which generally produces pittings.

On the other parts of the body, the pustules of the confluent small pox are more distinct than on the face; but never acquire the same maturity and consistence of pus, or matter, as in the distinct kind. The sali-

vation, which only sometimes attends the distinct small pox, very constantly attends the confluent. In infants a diarrhæa comes frequently instead of a salivation.

In this kind of small pox, there is often a very considerable putrescency of the fluids, as appears from petechiæ, serous, or watery vesicles, under which the skin shews a disposition to gangrene, and form bloody urine, or other hæmorrhages; all which symptoms frequently attend this disease. In the confluent small pox also, the fever, which had only suffered a remission from the eruption to the maturation, at or immediately after this period, is frequently renewed again with considerable violence. This is what has been called the *secondary fever*, and is of various duration and event.

In the confluent kind the danger is always very considerable: and the more violent and permanent the fever is, the greater the danger; and especially in proportion to the increase of the symptoms of putrescency. When the putrid disposition is very great, the disease sometimes proves fatal before the eighth day; but, in most cases, death happens on the eleventh, and sometimes not till the fourteenth or seventeenth day. Though the small pox may not prove immediately fatal, the more violent kinds are often followed by a morbid state of the body, sometimes of very dangerous event. These consequences, according to Dr. Cullen, may be imputed sometimes to an acrid matter produced by the preceding disease, and deposited in different parts; and sometimes to an inflammatory diathesis produced and determined to particular parts of the body.

Dr. Buchan is of opinion, that, "the pustules, as soon as they come to maturity, should be opened." But Dr. Sims, in his Observations on epidemical diseases, says, "Allow me to remark on the practice of those, who recommend the pustules in the face to be opened, when at the height, that the contained matter being thereby evacuated, the face may not retain any disagreeable marks. In a favourable distinct pox, this caution seems superfluous, there being

“ing little danger of its leaving any deep impressi^on ;
 “and in the confluent malignant kind, when I have
 “seen it practised, it has always given such intolerable
 “smart, as must wound any person not deprived of
 “humanity itself.”

CAUSES. It is evident that the small pox was originally produced by a contagion ; and that this contagion is a ferment with respect to the fluids of the human body, which assimilates a great part of them to its own nature ; and it is probable that the quantity thus assimilated is, in proportion to their several bulks, nearly the same in different persons. Since the introduction of this disease into Europe, the infection has never been wholly extinguished. Children are most liable to this disease ; especially when over-heated by running, wrestling, &c. Adults, after a debauch are also very apt to be seized with the small pox.

REGIMEN. When the first symptoms of the small pox appear, people are alarmed, and generally have recourse to medicine, to the great danger of the life of the patient ; and if convulsions appear, the alarm is still greater, as if they announced a primary disease ; instead of being a symptom, and not an unfavourable one, of the approaching eruption ; as the fits usually go off before the actual appearance of the small pox. Slight convulsions are supposed a favourable symptom, as it has been observed they prognosticate the distinct sorts, and never precede the confluent.

During the eruptive fever, the patient should be kept cool and easy, and allowed to drink freely of some weak diluting liquors ; as barley-water, balm-tea, clear whey, gruels, &c. Instead of being wholly confined to his bed, he should sit up as much as he is able, and have his feet and legs often bathed in luke-warm water.

To confine the patient too soon to his bed at this period, and supply him with abundance of warm cordials or sudorific medicines is doubtless very pernicious. Whatever heats and inflames the blood increases the fever, and prematurely forces out the pustules ; which

not only increases the number of pustules, but also tends to make them run into one another; such as have been pushed out with too great violence, generally falling in before they come to maturity.

A filthy custom prevails among the inferior classes of people, of allowing children in the small pox to wear the same linen during the whole period of that loathsome disease. This is perhaps done to prevent their catching cold, but it is attended by many ill consequences: the linen, by the moisture which it absorbs, becomes hard, and frets the tender skin. It also occasions an offensive smell, which is pernicious to the patient, as well as to those about him.

Suffering several children, who have the small pox, to lie in the same bed, has many ill consequences; they should never be even in the same chamber, as the perspiration, the heat, the smell, &c. all tend to augment the fever, and heighten the distress.

The food, in the small pox, should be very light, and of a cooling nature, as panado, or bread boiled with milk and water, apples roasted or boiled with milk, or the like. The drink may be a mixture of equal quantities of milk and water, clear sweet whey, barley-water, thin gruel, &c. Butter-milk is of an opening and cleansing nature, and therefore a very proper drink after the pox are full.

CURE. Little more is necessary, during the primary fever, than to keep the patient cool and quiet, encouraging him to drink diluting liquors, and bathe his feet frequently in warm water. This is the safest course that can be taken with infants, but adults of a strong constitution and plethoric habit sometimes require bleeding: a full pulse, a dry skin, and other symptoms of inflammation, render that operation necessary; but when these symptoms are not urgent, it may be safer to let it alone. If the body is bound, emollient clysters should be thrown in.

If a great nausea or inclination to vomit comes on, weak camomile tea or warm water should be drank, in order to cleanse the stomach. At the commence-

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ment of a fever, nature generally attempts a discharge, either upwards or downwards, which, when gently promoted, greatly abates the violence of the disease. Though every endeavour should be used, during the primary fever, by a cool regimen, &c. to prevent too great an eruption; yet, after the pustules have made their appearance, the suppuration must be promoted by diluting drink, and light food, and, if nature seems to flag, by generous cordials; good wine made into a negus, with about an equal quantity of water, and sharpened with orange-juice, currant-jelly, &c. is extremely proper. Wine whey, sharpened as above, is equally salutary in this case: but if the patient should be over-heated by any of these things, the eruption would be retarded instead of being promoted.

When the rising of the small pox is prevented, as it often is, by the violence of the fever, a cool regimen should strictly be observed, and the patient should be kept lightly covered with bed-clothes. When excessive restlessness prevents the rising and filling of the small-pox, gentle opiates are necessary; but they ought always to be administered sparingly; a tea-spoonful of the syrup of poppies may be given to an infant every five or six hours, till it has produced the effect desired. A table-spoonful to an adult will be about enough. Should the patient be troubled with a stranguary, or suppression of urine, a tea-spoonful of the sweet spirit of nitre may be occasionally mixed with his drink; a plentiful discharge of urine being highly beneficial in the small-pox.

When the mouth is foul, and the tongue dry and chapped, it should be often washed, and the throat gargled with water and honey, acidulated with vinegar or currant-jelly. Pernicious consequences ensue when a patient has been seven or eight days without a stool; it will therefore be proper when the body is costive, to throw in an emollient clyster every second or third day, through the course of the disease.

When purple, black, or livid spots appear among the small-pox, the Peruvian bark must be immediately administered

administered in as large doses as the patient's stomach can bear. If for a child, two drams of the bark in powder may be mixed in three ounces of common water, one ounce of simple cinnamon-water, and two ounces of the syrup of orange or lemon. It may be sharpened with the spirits of vitriol, and a table-spoonful administered every hour. An adult may take at least three or four spoonfuls every hour, in the same form. As this is an important medicine in these cases, it must be administered as frequently as the stomach can bear it. Many happy effects are produced by the use of this medicine; it frequently occasions the petetiæ or purple spots to disappear, and the small-pox, which had before a very threatening aspect, to rise and fill with laudable matter.

In this case also the patient's drink should be generous, as wine or strong negus sharpened with the spirits of vitriol, lemon-juice, vinegar, currant-jelly, &c. Apples, roasted or boiled, preserved cherries, plums, and other acid fruits should be his principal food.

In the lymphatic or chrystaline small-pox, where the matter is thin, and not duly prepared, the bark and acids are also necessary. The Peruvian bark seems to possess a singular power of assisting nature, in preparing laudable pus or matter; and consequently must be very beneficial in this, and other diseases, where the crisis depends on a suppuration. It often happens that, where the small-pox were flat, containing in them transparent matter, and where they had at first the appearance of running into one another, that the Peruvian bark, sharpened as above, changes the colour and consistence of the matter, and produces the most happy effects.

When the eruptions suddenly subside, or as it is familiarly expressed, *strike in*, before they have arrived at maturity, the danger is very great. In this case blistering-plaisters must be immediately applied to the wrists and ancles, and the patient's spirits supported with cordials. Sometimes bleeding, under the direction of a very skilful physician, has a surprising effect

in raising the pustules after they have subsided; but this is not to be attempted without the best advice respecting the propriety of it, or to what length the patient can bear it. Sharp cataplasms, applied to the feet and hands, tend to promote the swelling of these parts, and draw the humours towards the extremities.

The most dangerous period of the small-pox is what is called the secondary fever; which generally comes on when the small-pox begin to blacken, or turn on the face. Most of those who fall victims to the small-pox are carried off by this fever.

Nature often attempts, at the turn of the small-pox, to relieve the patient by loose stools. When this happens to be the case her kind endeavours should be promoted, and the patient should, at the same time, be supported by food and drink of a nourishing and cordial nature.

If, when the secondary fever approaches, the pulse is very quick, hard, and strong, the heat intense, and the breathing laborious, with other symptoms of an inflammation of the breast, the patient must instantly be bled: the quantity of blood to be taken to be regulated by the urgency of the symptoms, and the age and strength of the patient. If, in the secondary fever, the patient be faintish, the pustules become suddenly pale, and there be great coldness of the extremities, blistering plaisters must be applied, and the patient must be supported with generous cordials. In such cases wine, and even spirits, have been given with great success.

It is generally found necessary, after the cure of the small-pox, to purge the patient; but if, during the course of the disease, the body has been kept open, or if butter-milk, and other opening drinks have been taken freely after the height of the small-pox, purging becomes less necessary, though it should not wholly be omitted.

For infants, or very young children, an infusion of fenna and prunes, with a little rhubarb, and sweetened with coarse sugar, may be given in small quantities till

till it operates. A child of the age of five or six years may take eight or ten grains of fine rhubarb in powder over night, and the same quantity of jalap in powder next morning. This may be wrought off with water-gruel, and repeated three or four times, allowing five or six days to intervene between each dose. For older children, and adults, the dose should be increased in proportion to the age and constitution.

Parents often deceive themselves, with a confidence that their children are exempt from danger of infection, because they have been in the same room, or even in the same bed, with those who have had the small-pox upon them. But lest too great a reliance should be placed on this circumstance, and should prevent the adoption of necessary measures, it should be generally known that children, *in early infancy*, are not so liable to receive this disease as is commonly imagined; and that a child, who has been exposed to the influence of this disease without receiving it, or who has even been inoculated without effect, may in a little time become highly susceptible of infection. *Med. Admonitions*, p. 249.

THE SMALL POX BY INOCULATION.

SYDENHAM practised the present cool method of treating the small-pox, and wrote in defence of that method: Boerhaave proposed to cure the small-pox, without permitting a suppuration: and Dr. Woodward, in 1713, received a letter which gave an account of the success of inoculating the small-pox in Constantinople: In 1721, when George the Second reigned over Great-Britain, that prince consented that a trial should be made on seven condemned criminals, and success attended the experiment. In 1722, many of the English nobility were inoculated; and, in 1722, some of the royal family followed their example.

In 1727, Newman wrote on the small pox by inoculation; when some favoured, and others opposed its progress,

progress, and the practice was but little encouraged till the courage and sagacity of Mr. Sutton led him into the present improved method of communicating the small-pox, and of treating those who are the subjects of it; by which he deservedly acquired an affluent fortune. But the benevolence which accompanied the same sagacity in Baron Dimsdale, led him to teach the world the art of relieving themselves from the terrors of the disease. His method of inoculating for the small-pox is the standard of practice, and his plan is here principally pursued.

It is not to be supposed that the mere giving of the infection artificially could make any difference in the nature of the disease, was it not that certain precautions are commonly used in the case of those who are inoculated, which cannot be used in the case of those who receive them naturally. These measures, according to Dr. Cullen, are chiefly the following:

1. The choosing for the subject of inoculation persons otherwise free from the disease, and not liable from their age or otherwise to any incidental disease:
2. The choosing that time of life which is most favourable to a mild disease.
3. The choosing for the practice a season most favourable to a mild disease.
4. The preparing the person to be inoculated, by enjoining abstinence from animal food for some time before inoculation.
5. The preparing the person by courses of mercurial and antimonial medicines.
6. The taking care, at the time of inoculation, to avoid cold, intemperance, fear, or other circumstances which might aggravate the future disease.
7. After these preparations and precautions, the choosing a fit matter to be employed in inoculation, by taking it from a person of a sound constitution, and free from any disease, or suspicion of it; by taking it from a person who has had the small-pox of the most benign kind; and lastly, by taking the matter from such person as soon as it has appeared in the pustules, either on the part inoculated, or any other parts of the body.
8. The introducing, by inoculation, but a small portion of the contagious matter.
9. After inoculation, the continuing of the

vegetable diet, at the same time employing frequent purging. 10. Both before and after inoculation, taking care to avoid external heat, either from the sun, artificial fires, warm chambers, much clothing, or being much in bed; and, on the contrary, exposing the person to a free and cool air. 11. Upon the appearance of the eruptive fever, the rendering that moderate by the employment of purgatives; by the use of cooling and antiseptic acids; and especially by exposing the person frequently to a cool air, at the same time giving freely of cold drink. 12. After the eruption, the continuing the application of cool air, and the use of purgatives, during the course of the disease, till the pustules are fully ripened.

As the common infection may often seize persons under a diseased state, which may render the small-pox more violent, it is evident that inoculation must have a great advantage, by avoiding such concurrence. But as the avoiding of this may, in the mean time, frequently leave persons exposed to the common infection, it is well worth while to enquire what are the diseased states, which should restrain from the practice of inoculation.

Constitutions of most kinds admit of inoculation with safety. The scrophulous, scorbutic, arthritic, and corpulent, and even the intemperate, all do well. Those who labour under acute or critical diseases, or in whom are symptoms of great debility, should be treated with proper means for the recovery previous to their being inoculated.

Dr. Buchan says, "Children who have constitutional diseases, must nevertheless be inoculated: it will often mend the habit of the body; but ought to be performed at a time when they are most healthy;" and that "accidental diseases should always be removed before."

Though inoculation hath been practised with safety upon persons of all ages, yet there is reason to conclude that adults are more liable to a violent disease than younger persons. At the same time it is observed, that children, in the time of their first dentition (or cutting the teeth) are liable, from the irritation of that,

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to have the small-pox rendered more violent; and that infants, before the time of dentition, upon receiving the contagion of the small-pox, are liable to be afflicted with epileptic fits, which frequently prove fatal.

Hence it is evident, that though circumstances may admit and approve of inoculation at any age, yet for the most part it will be advantageous to choose persons after the first dentition is over, and before the time of puberty. The operation of inoculation may be performed at any season of the year; yet as it is certain that the cold of winter may increase the inflammatory, and the heats of summer increase the putrescent state of the small-pox, it is highly probable that inoculation may have some advantage from avoiding the extremes either of cold or heat.

In general, the temperate seasons are preferred; but the only exceptionable one is, the hot months in summer; though cold constitutions are safely inoculated in the warmest weather. When inflammatory or putrid diseases prevail, they are unfriendly, and, during their continuance, inoculation should be omitted.

Though it has commonly been supposed, that inoculation derives some advantage from the choice of the matter employed in it; it is very doubtful, if any choice be here necessary, or can be of any benefit in determining the state of the disease. It is not indeed probable that there is any difference of contagion producing the small-pox; for there are innumerable instances of the contagion arising from a person who labours under the distinct small-pox producing the confluent kind, and the contrary. Since the practice of inoculation hath been introduced, it hath also been observed, that the same variolous matter would in one person produce the distinct, and in another the confluent small-pox. It is therefore highly probable, that the difference of the small-pox does not depend upon any difference of the contagion, but upon some difference in the state of the persons to whom it is applied, or in the state of certain circumstances concurring with the application of the contagion.

It hath been questioned by some, whether the genuine

nuine small-pox was conveyed by inoculation? But there is in reality much more difficulty in conceiving, that a contagious substance should propagate, instead of its own, another disease. Dr. De Haen, amidst all his oppositions to inoculation, never supposed that the matter of the small-pox produced any disease but the small-pox itself.

The possibility of the disease being again produced, in one who has already had the disease by inoculation, is not now suspected by any, except by those who obstinately reject the most positive evidence, and even the dictates of common sense.

Many have supposed that inoculation has an advantage over the natural infection, by introducing only a small portion of contagious matter into the body; but this is by no means well ascertained. It is not known what quantity of contagion is introduced into the body by the common infection of the small-pox; and it is probable the quantity is not great: nor, though it were larger than that thrown in by inoculation, is it certain what the effects would be. A certain quantity of ferment may be necessary to excite fermentation in a given mass; but when that quantity is given, the fermentation, and assimilation, are extended to the whole mass; and we do not find that a greater quantity than is just necessary, either increases the activity of the fermentation, or more certainly secures the assimilation of the whole. In the case of the small-pox, a considerable difference in the quantity of the contagion introduced, hath not shewn any effects in modifying the disease.

The principal advantages of inoculating for the small-pox are, that the pustules can be made to be fewer in the face; the marks on the face are not so deep from the inoculated, as from the natural small-pox; the secondary fever rarely follows inoculation; measures can be taken to provide against the violence of the future fever, and other symptoms; the loathsomeness and the difficulty of managing this disease is greatly lessened, from those which attend in the natural small-pox. It is probable that the infection being received

in a vital part, in the natural way, may have more violent effects than when communicated by the extremities.

To communicate the infection, the variolous matter must be introduced into a sensible part; and as the smallest sensible quantity of variolous matter suffices to produce the small-pox, the present practice is to make two or three slanting incisions in the arm, so superficial as not to pierce quite through the skin, with a lancet wet with fresh matter taken from a ripe pustule: afterwards the wounds are closed up, and left without any dressing.

There is indeed a method of communicating the small-pox, without making any wound or puncture; which method may be adopted by those who are afraid of a wound: Take a bit of thread, of the length of about half an inch, wet it with the matter, and immediately apply it to the arm, about the midway between the shoulder and elbow; then cover it with a piece of common sticking-plaster, and let it be kept on for about eight or ten days. This method will seldom fail to communicate the disease.

Another method:—The point of a needle, or of a lancet, may be dipped in the matter of a variolous pustule, and then introduced into the skin, just deep enough to wound it; but it is not necessary that blood should be discharged. The needle, or lancet, dipped in the variolous matter, will serve several days after for communicating the infection. One puncture may suffice, but sometimes one is made in each arm, any where above the elbow.

As the use of animal food may increase both the inflammatory and putrescent state of the human body, so it must render persons, in receiving the contagion of the small-pox, less secure against a violent disease; and therefore inoculation may derive some advantage by enjoining abstinence from animal food, for some time before the operation is performed.

It is usual to regulate the diet for some time before the disease be communicated. In children, however, much alteration in diet is seldom necessary, their food generally consisting of the most simple and wholesome kind;

kind; as broth, milk, light pudding, water-pap, white meat, mild roots, &c. But children who have been indulged with improper food, abound with bad humours, and are of a gross habit of body, ought to be put upon a spare diet before inoculation: their food should be light, and of a cooling nature; and their drink should be whey, butter-milk, or the like.

The best preparation is, to produce a healthy state of the body. If the health is perfect, preparation is useless; if defective, it must be restored. That particular disposition on which a mild small-pox depends, is yet unknown, a healthy one comes nearest to it, and could that be ascertained, perhaps that is the disposition.

No other medicinal preparations seem necessary, than two or three mild purges, which should be suited to the age and constitution of the patient. The success of inoculators depends more principally on their keeping their patients cool, and their bodies gently open, by which means the fever is kept low, and the eruption greatly lessened. When the pustules are few, the danger is seldom great; and their number is generally in proportion to the fever which precedes and follows the eruption. The grand object is to regulate the eruptive fever, which may generally be kept sufficiently low by the methods above recommended.

With regard to regimen in this disease, let it be the same as in the natural small-pox. Should any bad symptoms appear, they must be treated in the same way as directed in the natural small-pox.—Let it also be remembered, that purging is as necessary after the small-pox by inoculation, as when it has happened in the natural way: it ought not to be neglected.

Mr. *Parkinson* thus addresses his readers on the subject of inoculation.—“ Impress it on your memory, “ that one in every ten or twenty, has been found to “ die of the small-pox coming spontaneously, or in the “ natural way, and but one in two hundred of those “ who receive it by inoculation: and that of those who “ have been inoculated from the matter of what is “ termed the *Cow-Pox*, only one in fourteen hundred “ have been lost.” *Villager's Fr.* 49.

THE CHICKEN OR SWINE POX.

THIS is so slight a disease, and attended with so little danger, as seldom to require much medical assistance. It would hardly merit any notice, if it were not apt to be confounded with the small-pox, and thus give occasion to an opinion that a person might have the small-pox twice in his life; or it sometimes deceives into a false security those who have never had the small-pox, and induces them to believe that they are safe, when in reality they are not.

The patient, being assured of his future exemption from the effects of the contagion of the small-pox, neither avoids those situations in which he knows he may be within the sphere of its influence; nor does he have recourse to inoculation, which would either confirm the hopes he entertains, or insure his future security.

The patient suffers little throughout the whole progress of this disease, except some languidness of strength and spirits and appetite, all perhaps occasioned by being confined to his chamber. Medicines are not much wanted in a disease attended with hardly any inconvenience, and which in so short a time is certainly cured of itself.

The principal marks by which the chicken-pox may be distinguished from the small-pox, are, 1. The appearance, on the second or third day from the eruption of that vesicle, or bladder, full of serum, or matter, upon the top of the pock. 2. The crust, which covers the pock on the fifth day; at which time those of the small-pox are not at the height of their suppuration.

Foreign medical writers seldom mention the name of this disease; and the writers of our own country hardly ever mention any thing more of it than its name. From the great similitude between the two distempers, it is probable, that, instead of the small-pox,
some

some persons have been inoculated from the chicken-pox; and that the disease which has succeeded that operation, has been mistaken for the small-pox by hasty or inaccurate observers.

All that is necessary, in general, is to give two or three purges after the drying of the pustules.

THE MEASLES.

THIS disorder appeared in Europe about the time that the small-pox appeared; and hath great affinity to it. They both came from the East, and are both infectious. The measles is an acute disorder. Dr. Mead says, it is of the peripneumonic or inflammatory kind; some call it an eruptive fever, of a simple inflammatory nature; others rank it as a catarrhal fever; Dr. Morton says that the scarlet fever is the confluent measles; and Dr. Watson observes, that in the small-pox the eruption is critical, but not in the measles, as there the eruption is merely symptomatic, it being well known that the cough, the peripneumony, &c. are not relieved by the eruption, but most generally continue after it is over: and further he observes, that it is a common notion that the measles are a good preparative for the small-pox, but that the opinion is false, and that from experience he observes it is most prudent not to inoculate for the small-pox, till at least six months after a bad kind of the measles.

The measles are most common in the spring season, and generally disappear in summer. This disease attacks persons of all ages, but for the most part children are its subjects. In large towns it is more fatal than in villages.

This disease, like the small-pox, proceeds from infection, and like that affects a person only once during life. The disease itself, when properly managed, seldom proves fatal; but its consequences are often very troublesome.

SYMPTOMS,

SYMPTOMS. In some constitutions the measles give notice of their approach many days before an evident invasion, by a small, frequent, and dry cough, without any other sensible complaint; though more frequently by a general uneasiness, by successions of shivering and heat, and by a severe head-ach in grown persons, a heaviness in children, and often a hoarseness; and by what more particularly characterizes this distemper, an inflammation, and a considerable heat in the eyes, attended with a swelling in the eye-lids, a defluxion of sharp tears, and so acute a sensation in the eyes that they cannot bear the light: also by very frequent sneezing, and a dripping from the nose. Sooner or later a fever manifests itself, which soon increases, a cough comes on, a stuffing, with a degree of anguish, and continual reaching to vomit; violent pain seizes the loins, and sometimes a looseness comes on, in which case the vomiting is less troublesome. In some a considerable sweating chiefly prevails.

The symptoms are generally more violent than in the milder kind of small-pox: they usually increase to the fourth day, at which time little red spots, like flea-bites, begin to appear on the forehead, and other parts of the face, which being increased in number and size, run together in clusters, and form large red spots of different figures; on the third day these spots appear in some, but in others not till the fifth: these red spots are composed of small red pimples, seated near each other, and rising a little higher than the surface of the skin, so that they may be felt upon pressing them lightly with the finger; though they can hardly be seen. Many of these spots soon joining, form red streaks or suffusions, larger or smaller, which inflame the skin, and produce a swelling of the face, whence the eyes are sometimes closed: each spot of suffusion is elevated a little above the face, but in the other parts of the body this elevation is not perceptible except by the roughness of the skin: this eruption, first appearing in the face, is afterwards extended to the

No. 4 Q breast,

breast, back, arms, thighs, and legs; and generally spreads plentifully over the breast and back, and sometimes red effusions are seen on the breast, before any thing appears on the face.

The eruption, in the measles, is not followed by so sensible an abatement of the symptoms, as in the small-pox; the reaching and vomiting indeed totally abate, but the cough, fever, head-ach, &c. grow more violent; the difficulty of breathing, the weakness of, and defluxion upon the eyes, the constant drowsiness, and loss of appetite, persist in their former state. Sometimes a bilious vomiting is observed a day or two after the eruption, which relieves considerably. Sometimes the patient is relieved by a copious discharge of blood from the nose, which greatly relieves the complaints in the head, eyes, and throat.

On the third or fourth day after the first appearance of the eruption, the redness diminishes, the spots dry up and fall off in branny scales, and the forehead and face grow rough; but in the other parts of the body, the spots appear very large and red: in about another day, or sooner or later, according to the malignity of the symptoms attending, all spots are vanished from the face, and but few remain elsewhere; the face and limbs, and sometimes the whole body, has the appearance of being covered with bran sprinkled over them; but this branny appearance is not an attendant in some seasons.

On the ninth day from the beginning, when the progress has been speedy, and the eleventh when it hath been slow, no trace of redness is to be found, and the surface of the skin soon resumes its usual appearance. At the going off of the spots, the defluxion on the eyes increases, the fever and difficulty of breathing increase, the cough becomes more troublesome from the defluxion on the lungs, so that the patient can get no rest in the day, and very little in the night: this bad symptom is worse after too heating a regimen, and when the medicines have been too warming,

warming, which are often employed to promote the eruptions; from these circumstances arise an inflammation of the lungs which destroys a great number of patients.

The bad symptoms are often followed by a looseness, which immediately succeeds the disease, and continues several weeks after all other symptoms are quite removed. The looseness is often fatal. Sometimes it happens that, after a hot regimen, the eruptions turn livid, and then black; but this happens only in grown persons, and, unless due bleeding and cooling antiseptics prevent, it is fatal.

If in the course of the disease, or immediately after it, some considerable evacuation, such as the vomiting of a bilious matter, a bilious looseness, a considerable discharge by urine, or plentiful sweating comes on, the patient recovers soon after the spots disappear from the skin; but sometimes, for want of these evacuations, the venom of the disease is not duly expelled, but is translated to the lungs, occasioning inflammation there, with a fever, anguish, cough, or other symptoms, and with them no small danger of life. This outrage is usually less vehement than what attends the measles, but it proves tedious and chronical, and the cough resembles the whooping cough; but when a cool regimen hath been used, these consequences are rare.

The measles, in their dangerous state, may be considered as a peripneumonia. The favourable symptoms are, a moderate looseness, a moist skin, and a plentiful discharge of urine. If the pain in the head, which attends in the beginning, continues through the various stages, it generally leaves some bad complaint, and, not unfrequently, a gutta serena. When the measles are over, if a cough and hoarseness remain, a consumption is likely to follow. The dangerous symptoms are, a sudden disappearance of the spots, a delirium, great loss of strength, coldness of the extremities, restlessness, violent vomiting, a continual cough, profuse sweats, convulsions, a difficulty of swallowing, the spots turning pale or livid.

REGIMEN. In this, as well as in the small-pox, the cool regimen is necessary; the food light, and the drink diluting: acids, however, are not so proper in the measles as in the small-pox, as they tend to provoke the cough. Small beer, though proper in the small-pox, is improper in the measles. The most suitable liquors are decoctions of liquorice, with marsh-mallow roots and sarsaparilla, infusions of linseed, or of the flowers of elder, barley-water, balm-tea, clarified whey, and the like. If the patient be costive, these may be seasoned with honey; or, if that should not agree with the stomach, a little manna may occasionally be added.

CURE. This being an inflammatory disease, without any critical discharge of matter as in the small-pox, bleeding is generally necessary; especially when the fever runs high, with difficulty of breathing, and great oppression of the breast.

Bleeding seldom fails to be a first step towards relief in this disorder. If the symptoms indeed are very mild, this operation is not necessary; but if the heat is considerable, the breathing much affected, or the breast seems oppressed, blood must immediately be taken away, and bleeding may be repeated at any time of the disease, if the pulse is hard, and other symptoms seem to require it. When symptoms are violent, there is danger of an inflammation of the lungs; therefore, whether the eruptions have already appeared, are already out, or on the decline, the lancet must not be spared. This remedy may be employed at any time in the course of the disease, or after the ordinary course of it is finished. It is to be employed more or less, according to the urgency of the symptoms of fever and cough, and generally may be employed very freely.

Bathing the feet and legs often in luke-warm water, not only tends to abate the violence of the fever, but to promote the eruption. Vomiting frequently relieves the patient: when there is a tendency this way, it should be promoted by drinking luke-warm water, or weak camomile tea.

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The cough and hoarseness with dryness of the throat, and difficulty of breathing, are best relieved by causing the patient to hold his head over the steam of warm water, and draw the steam into his lungs. The dry cough may be alleviated by the large use of demulcent pectorals, mucilaginous, oily, or sweet. For moderating and quieting the cough in this disease, opiates certainly prove the most effectual means, whenever they can be safely employed. For children, the syrup of poppies is sufficient: a tea-spoonful or two may be occasionally given, according to the age of the patient, or the violence of the symptoms.

The bark is of singular advantage in this disease; and after bleeding, and rendering the bowels soluble, its use may be begun the first days of the disease; it much relieves the hoarseness, cough, and many other symptoms. If purple or livid spots appear, the bark, with vitriolic, or any of the dulcified mineral acids, will be absolutely necessary. Dr. Cameron observes, that the coming on of bad symptoms, after the disappearing of the measles, is owing to the retrocession of the morbid acrimony; and that they may be prevented by giving small doses of the bark in substance, with a little watery extract of myrrh in cinnamon water; thus, he says, the fever and cough will cease on the seventh day, but the effervescence continues on the face till the twelfth, because the bark prevents the retrocession of the morbid matter.

If the fever should assume new vigour, at the turn of the disease, and there appears danger of suffocation, the patient should be bled according to his strength, and blistering-plasters should be applied to prevent the load from being thrown on the lungs; where, if an inflammation should fix itself, the patient would be in imminent danger.

A looseness coming on in the beginning, or any other period of this disease, is useful if it is moderate; but if it seems to affect the strength of the patient, it must not totally be neglected, nor yet checked very suddenly; bleeding is generally necessary, in this case,
and

and small doses of rhubarb may be given with saffron and the testaceous powders.

If the measles suddenly disappear, pursue the same method which we have recommended when the small pox recede. The patient must be supported with wine and cordials. Blistering-plaisters must be applied to the legs and arms, and the body rubbed all over with warm flannel. Warm poultices may also be applied to the feet and palms of the hands.

When the measles are gone off, gentle purging should be repeated, or perspiration must be kept up for some days.

If a violent looseness succeeds the measles, check it by taking for some days a gentle dose of rhubarb in the morning, and an opiate over night. If these do not remove it, bleeding seldom fails to have that effect.

If a cough, with difficulty of breathing, and other symptoms of a consumption remain after the measles, take from the patient small quantities of blood at proper intervals, as his strength and constitution will permit. He should remove to a free air, drink asses' milk, and ride daily on horseback; and he should confine himself to a milk diet and vegetables. A warmer climate, if these should not succeed, will be necessary.

Patients recovering from the measles should be particular in observing a proper regimen. Their food, for some time, should be light, and taken in small quantities, and their drink diluting, and rather opening, as whey, butter-milk, and such like. They must not expose themselves too soon to the cold air, lest a catarrh, an asthma, or a consumption of the lungs should be the consequence.

Those who die of the measles, are usually taken off on the ninth or tenth day by a suffocation, or by an inflammation in the lungs. Some, when the disease is ended, have a looseness, which continues several weeks, and brings on a mortal tabes or consumption; and others have a slow fever, with an atrophy, and a swelling of the belly, which are fatal.

The

The measles may be inoculated by means of the hot sharp rheum, which distills from the eyes, or from the blood, or by means of flannels placed under the armpits, where the effluvia may be imbibed, and this applied where a small puncture is made. Tissot assures us, that he practised the inoculation of the measles for twelve years, and the more he inoculated, the more he saw reason for encouraging others to do the same. Dr. Home, of Edinburgh, proposed, by inoculating the measles, to prevent its mortality, to prevent the cough, and to prevent the disorders which in the natural way are consequents of this disease: and his experience manifests the advantage of inoculating the measles, to exceed even those which are observed from inoculating the small-pox.

THE SCARLET FEVER.

THIS fever prevails most in the autumn, and begins, like other fevers, with coldness and shivering, without any violent sickness. It is named the Scarlet Fever because the patient's skin appears as if it was tinged with red wine. It sometimes seizes whole families, but children and young persons are most subject to it.

The mild scarlet fever is not attended with any great danger, insomuch that Sydenham says, he can scarce account it a disease. When it is in a moderate degree, it may almost be left to nature alone, only observing a good regimen. The patient, however, should keep within doors, abstain from flesh, strong liquors, and cordials, and drink freely of cool diluting liquors. If the fever runs high, keep the body gently open by emollient clysters, or small doses of nitre and rhubarb. If epileptic fits or convulsions come on, which sometimes is the case in children and young persons, the feet and legs should be bathed in hot water, a large blistering-plaister applied to the neck, and a dose of the syrup of poppies should be administered to the patient every night till he recovers.

The scarlet spots after a few days, dry off, and the skin scales away; after which the patient is usually soon well. At this time two or three doses of some gentle purge are to be given; and if the weather be bad, the patient is to be confined to his bed for some days afterwards, that the transpiration may be free and uninterrupted. But the scarlet fever sometimes assumes a severer aspect, and is attended with putrid or malignant symptoms, in which case it is always dangerous. In this case the most skilful physicians should be called in, Dr. Withering published a description of this disease in 1778, at which time it was very fatal at Birmingham and the neighbouring villages. It was accompanied with a sore throat.

After this disease the skin generally peels off, and frequently in pretty large portions. It frequently happens that an anasarous, or a kind of dropical swelling of the whole body comes on within a few days after the disappearance of the eruption, and is sometimes difficult of removal. When this disease is succeeded by anasarous swelling, the utmost care is required, lest an incurable dropsy should be the consequence.

THE BILIOUS FEVER.

WHEN a fever is accompanied with bilious discharges by vomit or stool, whether it be continual, intermitting, or remitting, it is called *bilious*, and belongs to the class of ardent fevers. It is most frequent and fatal in warm countries, especially where the soil is marshy, and when abundance of rain has been succeeded by sultry heat.

The burning bilious fever of the West Indies, called also the yellow fever, frequently attacks the Europeans, who indulge to excess, and are not careful to guard against the heats and dews that are common in that part of the world. It attacks with a transient chillness and shivering, which are soon succeeded by a burning heat all over the body; the pulse is high and quick,
but

but not hard; the eyes are heavy; a violent head-ach follows, with a strong pulsation of the temporal arteries, and a laborious respiration, or breathing; a nausea succeeds with bilious discharges; the anxiety of the patient is very great, and he feels pain in the back and loins, and an uneasy lassitude in the limbs.

In this country the bilious fever usually makes its appearance about the end of Summer, and ceases towards the approach of Winter. Those who work without doors, lie in camps, or are exposed to the night air, are most liable to the bilious fever.

If symptoms of inflammation appear at the beginning of this fever, it will be necessary to bleed the patient, and put him upon the cool diluting regimen recommended in the inflammatory fever. The saline draught may also be frequently administered, and the patient's body kept open by clysters or mild purgatives. But if the fever should remit, or intermit, bleeding will seldom be necessary. In this case a vomit may be given, and, if the patient's body be bound, a gentle purge: the Peruvian bark will then generally complete the cure.

If a violent looseness should take place, the patient should be supported with chicken-broth, hartshorn-jellies, and the like. When there is a burning heat; without sweating, that evacuation should be promoted by giving the patient a table-spoonful of *Mindererus's* Spirit three or four times a day, mixed in a cup of his common drink.

When this fever is attended with the nervous, malignant, or putrid symptoms, which sometimes happens to be the case, the patient should be treated in the manner recommended under those respective diseases.

To prevent a relapse after this fever, the patient, (especially when the autumn is far advanced) should continue the use of the bark for some time after he is recovered. He should also abstain from every kind of flatulent food, new liquors, and unwholesome fruits.

Dr. Percival, in his *Essays Medical and Experimental*, informs us, that in these fevers the powder of
No. 4. R columbo-

columbo-root given in doses of sixteen to twenty grains, with vitriolated tartar, from one to two scruples every four, five, or six hours, produces both speedy and beneficial effects. Dr. Haygarth, of Chester, farther remarks, that after the primæ viæ are unloaded of their bilious contents, the columbo-root admirably allays the nausea, constantly attendant on this disorder; and that it answers our warmest wishes, by correcting the bile, restoring the proper tone of the stomach, and of the whole habit; and that it is an excellent preventive of relapses, to which patients in this disorder are peculiarly disposed.

THE PLEURISY.

IT has been much disputed, whether this disease be an inflammation of the Pleura, or of the external coat of the lungs. It appears most probable, that the inflammation arises in the pleura, and spreads from thence to the lungs. When it is seated in the membrane called the pleura, which lines the inside of the breast, it is called a true or internal pleurisy; but when it chiefly occupies the external parts, and principally affects the muscles within the ribs, it is called the Spurious or Bastard pleurisy. The pleurisy is most predominant in the spring season, and prevails among labouring people, especially such as work within doors, and are of a sanguine constitution.

CAUSES. Its causes are cold applied to the skin; sudden and great distention of the pleura in drawing breath; drinking cold liquors after being heated by violent exercise; cold northerly winds; sleeping without doors, on the damp ground; wet clothes; plunging the body into cold water, or exposing it to the cold air, in a state of perspiration. Generally speaking, whatever obstructs perspiration may occasion the pleurisy. It may also be produced by drinking strong liquors; stopping issues, ulcers, sweating of the feet, or hands, or other usual evacuations; the sudden striking

striking in of the small-pox, measles, or any eruption. Neglecting accustomed bleeding at certain stated periods sometimes occasions a pleurisy. It may also be brought on by violent exercise, as running, leaping, wrestling, lifting heavy burthens, blows on the breast, &c. Want of symmetry, or a regular formation of body, renders persons more liable to this disease.

SYMPTOMS. This, like most other fevers, begins with chillness and shivering, which are followed by heat, thirst, and inquietude, and the other common symptoms of a fever. After a few hours the patient is seized with a violent pricking pain in one of his sides, commonly about the short ribs, which sometimes extends itself towards the back-bone, sometimes towards the shoulder-bone, and sometimes towards the fore-part of the breast, and this is attended with frequent coughing.

The matter which the patient spits is at first small in quantity, and thin, and mixed with particles of blood; but as the disease advances, it is more plentiful, and more concocted, but not without a mixture of blood. The pulse is remarkably strong, and seems to vibrate like a tense string of a musical instrument; and the blood drawn from a vein, as soon as it is cold, looks like melted suet. Sometimes there is little or no spitting in this disease, and hence pleurisies are distinguished into moist and dry.

REGIMEN. As in all inflammatory fevers, so in this, too hot a regimen is to be avoided; nor must the patient be exposed to the cold air, or drink any thing actually cold. The diet ought to be cool, slender, and diluting. The patient must avoid all food that is viscid, hard of digestion, or too nourishing; as meat, cheese, butter, eggs, milk, and every thing that is of a heating nature. Moistening things, taken warm, are preferable to all others; and hence barley-water, or water-gruel, sweetened with honey, and also sweet whey, are very proper. Barley-water with a little honey, or currant-jelly, is also a very proper drink in this disease. But these, and other diluting liquors, are

not to be drank in large draughts ; the patient should be frequently sipping them, in order to keep his mouth and throat continually moist. The patient's feet and hands should be bathed every day in hot water, and he should sometimes sit up in bed for a short space of time, in order to relieve his head.

As nature generally endeavours to carry off this disorder by a critical discharge of blood from some part of the body, by perspiration, expectoration, loose stools, thick urine, &c. her intentions ought to be seconded by lessening the force of circulation, relaxing the vessels, diluting the humours, and promoting expectoration.

CURE. It is well known that when a fever is attended with a violent pain of the side, and a quick, hard pulse, that bleeding is necessary. When these symptoms come on, that operation should not be delayed ; and the quantity at first must be pretty large, if the patient is able to bear it. A large quantity of blood, taken at once, in the beginning of a pleurisy, is much more effectual than repeated small bleedings. As soon as the disease is certainly known to be a pleurisy, an adult may lose twelve or fourteen ounces of blood. For a younger person, or one of a delicate constitution, the quantity should be proportionably less.

Boerhaave directs a large quantity of blood to be let, from a wide orifice, in a large vessel, and to fetch deep sighs, or cough, to promote its celerity ; and the part affected should be rubbed gently at the same time, and the bleeding continued till the pain remits.

If the stitch, and other violent symptoms continue after the first bleeding, it will be proper, at the distance of twelve or eighteen hours, to take eight or nine ounces more. Should these symptoms not then abate, and the blood shews a strong buffy coat, a third, or even a fourth bleeding may be necessary. If the pain of the side should then abate, the pulse become softer, or the patient begin to spit freely, bleeding should not be repeated. This operation is seldom necessary after the

the third or fourth day of the fever, and should not then be performed but in the most urgent circumstances. This Huxham confirms by his own experience, and adds, that, after the fourth day, bleeding is not safe: he likewise recommends fomenting the part, which often eases the pain, and terminates the disease: but if it is obstinate, he recommends slight scarifications, then cupping, and afterwards a blister on the same place; which has been successful when the usual methods failed.

There are many ways of thinning the blood without bleeding. Fomentations have a very good effect; they may be made by boiling a handful of elder flowers, camomile, and common mallows, or any other soft vegetables, in a proper quantity of water: The herbs may be put into a flannel bag, and applied warm to the side; or flannels, after being dipped in the decoction, and wrung out, may be applied to the part affected as warm as the patient can easily bear: as they grow cool, they must be changed, care being taken to prevent the patient's catching cold. A bladder, filled with warm milk and water, has been often applied to the side for this purpose, and found very useful.

Fomentations ease the pain, relax the vessels, and prevent the stagnation of the blood.

Topical, or local bleeding, often affords benefit in this disease. It may be performed by applying leeches to the part affected, or more certainly and expeditiously by cupping.

Leaves of various plants, as young cabbage-leaves, &c. may be advantageously applied warm to the side in a pleurisy. These not only relax the parts, but also draw off a little moisture, and may perhaps prevent the necessity of blistering-plaisters, which, however, must be applied when other things fail.

When the stitch continues, after repeated bleedings, fomentations, &c. a blistering-plaister must be laid on the part affected, and remain there for two days. This procures a discharge from the side, takes off the spasm, and greatly assists in removing the cause of the disease.

The patient's body should be kept open, for which purpose emollient clysters are proper; and he should, at the same time, take large quantities of strong diluting, aperient, and antiseptic liquors: for this purpose take the seeds of scordium, jack-by-the-hedge, and white hore-hound, each two ounces: boil them in two pints of water, with which mix of the oxymel of squills, eight ounces; of nitre, three drams; and of treacle-vinegar, one ounce; of this mixture let the patient take two ounces, every quarter of an hour, as warm as possible.

If the squill should disagree with the stomach, two ounces of the oil of sweet almonds, or oil of olives, and two ounces of the syrup of violets, may be mixed with as much powdered sugar-candy, as will make an electuary of the consistence of honey. A spoonful of this may be taken often, when the cough is troublesome. If oily medicines are found nauseous, as they sometimes are, two table-spoonfuls of the solution of gum ammoniac in barley-water may be administered three or four times a day.

A decoction of the Seneka rattle-snake root, is reckoned by some as a kind of specific in the pleurisy. After bleeding, and other evacuations have been premised, the patient may take two, three, or four table-spoonfuls of this decoction, according as his stomach will bear it, three or four times a day.

The crisis, or height of the fever is sometimes attended with very alarming symptoms, as difficulty of breathing, an irregular pulse, convulsive motions, &c. Hence the attendants become frightened, and act very improperly, by bleeding the patient, giving him strong stimulating medicines, and the like: not knowing or considering that these are the struggles of nature to overcome the disease, in which she ought to be assisted by plenty of diluting drink. If the patient's strength, however, should then be much exhausted, he should be supported with frequent small draughts of wine-whey, negus, &c.

After

After the pain and fever are gone, and the patient has recovered sufficient strength, some gentle purges should be given him. His diet should be light and easy of digestion, and his drink of a cleansing nature, as butter-milk, whey, &c.

THE BASTARD, OR SPURIOUS PLEURISY.

THIS disease, says Dr. Fordyce, arises nearly from the same causes, is attended almost with the same symptoms, and is to be cured in the same manner. Its difference from the pleurisy appears in these particulars: it may be produced by external causes; a swelling appears externally, with pain on the parts being touched; there is less pain on inspiration, and of consequence not so great a difficulty of breathing; the cough is for the most part dry; the general inflammation does not arise in so great a degree; the lungs are not so apt to be affected; the patient is never suffocated; and there is but little danger from supuration.

It is seldom or never cured by a spitting; but on the other hand, fomentations and poultices are applied to the part, with much greater effect than in the pleurisy. Purgatives may also be used with greater freedom. *Fordyce's Elem.* 246.

This species of pleurisy generally goes off by keeping warm for a few days, drinking plenty of diluting liquors, and observing a proper regimen.

THE PARAPHRENITIS, OR INFLAMMATION OF THE DIAPHRAGM.

IT arises from the same causes as the pleurisy, or inflammation of the pleura. The pain is very violent and deep-seated in the lower part of the breast, or under the short ribs; or striking between them and the back; the belly is drawn up and kept as much at rest

rest as possible; the breathing is excessively quick, small, and difficult, and performed principally by the muscles of the breast; the patient is frequently affected with sickness and hiccough; the pulse is for the most part very frequent, small, hard, and often irregular; and there is great anxiety. A convulsive laugh, or rather a kind of involuntary grin, is no uncommon symptom of this disease.

Upon the whole, the paraphrenitis, or inflammation of the diaphragm is nearly connected with the pleurisy, and the medicine and regimen are in all respects the same as in the pleurisy. Let it be remembered that, in this disease, emollient clysters are particularly useful, as they relax the bowels, and thereby make a derivation from the part affected. When a suppuration happens, it is impossible to save the life of the patient, every method must therefore be taken to prevent it.

Of these inflammations in the breast, that of the pleura near the fore-part of the ribs, and that of the lungs are the most frequent.

The inflammation of the pleura is almost always attended with some degree of the inflammation of the lungs; sometimes all these parts are inflamed together; but most commonly only one at a time in the same patient.

Most of the symptoms of a pleurisy attend an inflammation of the lungs; only in the latter the pulse is more soft, and the pain less acute; but the difficulty of breathing and oppression of the breast, are generally greater. The regimen and medicine being in all respects the same in the true peripneumony, or inflammation of the lungs, the reader is referred to the treatment of that disease.

A PERIPNEUMONY, OR INFLAMMATION OF THE LUNGS.

THIS is sometimes a primary disease, and sometimes it is the consequence of other diseases, as a quinsy, pleurisy, &c. It proceeds from the same cause as the pleurisy,

pleurisy, viz. an obstructed perspiration from cold, wet clothes, &c. The exciting causes may be, full meals of viscid and stimulating substances, such as smoked and salted meats, joined with spiceries; drinking freely of fermented or spirituous liquors, violent and long-continued exercise, and the sudden transition from extreme heat to cold. The pleurisy and peripneumony are often complicated; and the disease is then called a *pleuro-peripneumony*.

If the disease proceeds from viscid phlegm or matter, obstructing the vessels of the lungs, it is named the *spurious peripneumony*; if from a thin acrid defluxion on the lungs, it is called a *catarrhal peripneumony*. The robust and florid are most exposed to attacks of this disease. Males, from their greater strength of fibre, and from their being more exposed to the exciting causes, are more subject to this malady than females; and young persons are more liable to it than the aged.

SYMPTOMS. This disease generally commences with shivering, to which a considerable heat succeeds: the pain coming on and increasing with the heat. Most of the symptoms of a pleurisy, in some degree, attend an inflammation of the lungs.

REGIMEN and CURE. Great abstinence is necessary in this disease; since, in proportion to the nourishment taken in, will be the increase of the blood, and consequently of the disease. Nothing but watery drinks, as barley-water, toast and water, pectoral drink, &c. rendered pleasant by the mildest vegetable acids, should be allowed, till the violence of the disease is subdued; and even then the lighter kinds of nourishment, as panada, &c. should be cautiously and sparingly administered. The drinks may be taken often in small quantities, but they never must be entirely cold.

For the cure of this disease, large evacuations are generally required: that which is particularly beneficial, is the taking away of blood in a considerable quantity, and from a large orifice, from the arm; and even topical bleeding, by leeches, &c. may be necessary. But

if the patient's saliva is pretty thick, or well concocted, such evacuations may be improper. It will be sufficient to assist the expectoration by some of the sharp medicines, as the solution of gum ammoniac with oxymel of squills, &c. Blistering plaisters have generally a good effect, especially if applied pretty early.

If the patient does not spit, he must be bled according as his strength will permit, and take a gentle purge. His body may afterwards be kept open by clysters, and the expectoration promoted by taking two table-spoonfuls of the solution mentioned above, about every four hours.

When an inflammation of the breast does not yield to bleeding, blistering, and other evacuations, it usually ends in a suppuration, which is more or less dangerous from its situation. When this happens in the pleura, it sometimes breaks outwardly, and the matter is discharged by the wound: but when the suppuration happens within the substance of the lungs, the matter may be discharged by expectoration. Should the matter float in the cavity of the breast, between the pleura and the lungs, it can only be discharged by an incision made between the ribs. See *Pleurisy* and *Consumption*.

PART IV.

OF CONSUMPTION, THE ERYSIPELAS, INFLAMMATION OF THE BRAIN, EYE, &c.

OF A CONSUMPTION, OR PHTHISIS.

THE Greek word *phthisis*, signifies corruption, but it is only used to express that kind which causes a consumption of the whole body; and generally only that consumption of the body, which hath for its cause an absorption of purulent matter from the lungs. This disorder is chronic, yet inflammatory; and the only chronic disorder that is so.

The seat of the true phthisis, or consumption is in the lungs; not in the blood-vessels there, but the air-vessels. Sometimes one lobe is affected, and sometimes both.

A consumption is a wasting or decay of the whole body, from an ulcer, tubercles, or concretions of the lungs, an empyema, a nervous atrophy, or a cachexy.

No period of life, from childhood to old age itself, is exempt from this disease; but the most frequent subjects of it are, the young and the middle aged.

CAUSES. The persons most liable to consumptions are those of a fair complexion, fine and soft skin, florid cheeks, and a slender make; with high cheek-bones, hollow-temple, long neck, and narrow chest. To these marks we may add, that of *sound teeth*, which, as the disease advances, usually become of a milky-white colour, and more or less transparent. Of those who are carried off by this disease, Dr. Simmons asserts, the greater number will be found never to have had a carious tooth. Large veins, thick upper-lip, a weak voice, and tendency to hoarseness; and great sensibility also manifest a disposition to this disease.

Confined or unwholesome air is among the causes of consumption: when that fluid is impregnated with the fumes of metals or minerals, it proves highly injurious to the lungs, and often corrodes the tender vessels of that organ. It is not unusual for millers, stone-cutters, and others to die consumptive, from their being so constantly exposed to dust, which probably produce concretions; and Dr. Kirkland observes, that scythe-grinders are subject to a disease of the lungs, from particles of sand mixing with iron-dust, which among themselves they call the grinders rot.

Those artificers, and others, who sit much, and generally lean forward, or press upon the stomach and breast, as Tailors, Shoe-makers, Mantua-makers, &c. are often the victims of this disease. Violent exertions of the lungs, in singing, loud speaking, &c. produce the same calamity.

Violent passions, exertions, or agitations of the mind; too close an application to study, giving suck too long; great evacuations, as sweating, diarrhæas, diabetes, excessive venery; and over-discharge of the menstrual flux, the fluor albus, &c.

The sudden stoppage or suppression of customary evacuations; as the bleeding piles, bleeding at the nose, the sweating of the feet, the menses, issues, setons, ulcers, or eruptions of any kind.

The remote causes are, an hereditary disposition, weak and flaccid lungs, laxity of the fibres, an ill conformation of the breast, crookedness, a too free use of spirituous liquors, obstructed respiration, or the obstruction of any natural secretion, cold winds, a vapid putrid air, a plethora or too full habit of body, a defect of blood, small and tender blood-vessels, &c. Wet feet, damp beds, wet clothes, night air, and catching cold after the body has been heated, cause many consumptions.

Sharp, saline, and aromatic aliments, by heating and inflaming the blood, often occasion consumptions.

SYMPTOMS. Persons who fall under the meaning of the above description, often remain for a long time without feeling any other inconvenience than some oppression at the breast in moist weather, or in hot apartments. Their breathing is easily hurried, sometimes by the slightest motion; and they become languid, paler, and thinner. All this while, however, they feel no heat or painful sensation in the breast. As the evil increases, the patient begins to be attacked by a slight, frequent, and dry cough, which is most troublesome in the night.

This, however, by proper care, is often relieved; and the patient remains in this state for a considerable time, and even for many years, if he is sensible of the danger, and careful to guard against it by a suitable manner of living. More commonly, however, we find the cough increasing, and sometimes accompanied with more or less of catarrh, or defluxion. This is usually ascribed

ascribed to cold; and but too generally neglected, till the disease becomes alarming by its obstinacy and its effects. This may be considered as the beginning, or first period of the disease. During this stage, the cough is sometimes dry from the first; and sometimes, when it sets in the form of a catarrh, is attended with more or less expectoration of mucus.

When the disease has been neglected, or the attempts to remove it in the beginning have failed, both of which circumstances but too frequently happen, the patient begins to complain of a soreness, and of slight lancinating or shooting pains in the breast. The soreness is pretty constant, and much increased by the cough. The pain in the side often prevents the patient from lying on the side affected; and this inability of lying, except on one side, frequently occurs when no such pain is felt.

In this stage of the disease, flushing heats are felt in the palms of the hands, and soles of the feet; the breathing is short and laborious; and it is not long before the patient begins to expectorate a thin and frothy phlegm, or mucus, at first in small quantities, coughed up with difficulty and soreness, and now and then streaked with blood: this may be considered as the inflammatory period of the disease, to which succeeds the suppurative or digestive stage. In the latter, the expectoration becomes more copious and purulent, the breath proportionably offensive, and the hectic more considerable: an increased quickness of the pulse comes on about the middle of the day; but the most considerable paroxysm of the fever is at night, and at first continues till towards morning, commonly till three or four o'clock, when it terminates in a sweat, which usually begins upon the breast.

As the disease advances, the sweats become more profuse, and sometimes come on almost as soon as the pulse begins to quicken, but without affording any relief to the patient. During the height, we observe a circumscribed or limited redness of the cheeks, while the rest of the face is pale, and appears as if it were
not

not clean washed. The costiveness that usually accompanies the beginning of the disease, is generally succeeded by a looseness; the spitting lessens, and all the pus or purulent matter seems to be carried downwards.

The wasting of the fat, and the loss of nourishment, occasion the nails to curve inwards, the hair to fall off, and the eyes to sink in their sockets. In the mean time the legs generally swell; till at length death closes a scene which is melancholy to all but the patient himself, who in general continues sensible to the last moment, and even then indulges a vain hope of prolonging a miserable existence. In some cases a delirium comes on towards the close of the disease.

REGIMEN. The best adapted diet in consumptive cases, is milk, particularly that of asses. It is indeed a proverbial expression, that the best physician in consumptions is a horse, and the best apothecary is an ass. It may, however, be remarked, that there are many constitutions in which this salutary nutriment appears to disagree. A propensity to generate bile, or too strong a disposition to acidity, from a weakness of the digestive organs, both merit attention. Whey, either from cows' or goats' milk, appears to be more suitable in the former case; and for correcting acidity, lime-water may be added to the milk.

Asses' milk, in this disease, is reckoned preferable to any other, but the difficulty and expence of procuring a sufficient quantity to prove effectual, deter many from having recourse to it, and others from continuing the use of it for a reasonable time, in order to give it a fair trial. Asses' milk should, if possible, be drank in its natural warmth, and, by a grown person, in the quantity of half a pint three or four times a day. Very extraordinary effects are often produced by asses' milk in obstinate coughs, which threatened a consumption of the lungs. If it should happen to purge, it may be mixed with old conserve of roses, or the powder of crabs' claws.

Milk

Milk has been the diet proposed in every age, at least since the time of Hippocrates. Womens' milk, especially if drawn from the breast by the patient, is to be preferred to all others. Could this be obtained in sufficient quantity, says Dr. Buchan, "we would recommend it in preference to any other. It is better if the patient can suck it from the breast, than to drink it afterwards. I know a man who was reduced to such a degree of weakness in a consumption, as not to be able to turn himself in bed. His wife was at that time giving suck, and the child happening to die, he sucked her breasts, not with a view to reap any advantage from the milk, but to make her easy. Finding himself, however, greatly benefited by it, he continued to suck her till he became perfectly well, and is at present a strong and healthy man."

Cows' milk is more readily obtained than any other, and, in the absence of asses' milk, may be rendered lighter and more salutary by adding to it an equal quantity of barley-water, or letting it stand for some hours, and afterwards taking off the cream.

Dr. Buchan says, "If the milk should, notwithstanding, prove heavy to the stomach, a small quantity of brandy or rum, with a little sugar, may be added, which will render it both more light and nourishing." It seems clearly, however, that the late Dr. Fothergill was of a different opinion, when he said, "There is one usual addition made to milk, which, I think, should be either wholly proscribed, or the most express directions given concerning it; I mean, the common addition of brandy or rum to asses' or cows' milk. Ardent spirits occasion the milk to disagree, and augment the disease."

Milk affords a mild nourishment, and blunts the acrimony of the juices. Whey is always of singular advantage, and particular intentions might be carried on by feeding the ass, goat, or cow, with such vegetables as most conduced to effect the design of the prescribers, or the milk may be mixed with infusions of those herbs.

Dr. Temple

Dr. Temple says, "A diet principally of milk and vegetables, must be ordered; but it does not appear that animal food is to be prohibited, especially if it does not heat or aggravate the symptoms. Shell-fish, especially oysters, lobsters, and crabs are proper food; butter-milk should be freely taken, and the lichen islandicus is recommended, as producing beneficial effects, even in the advanced stage of the disease." *Temple's Pract. of Physic.* 134.

And Dr. Simmons observes, that, "the patient's taste should be consulted;" and says, "that moderate use of animal food, where the salted and high-seasoned kinds are avoided, is not to be denied. Shell-fish, particularly oysters, are useful, as well as snails swallowed whole, or boiled in milk."

Change of air, sometimes even from good to bad, is of great consequence in all chronic diseases of the lungs. In consumptive cases, however, the air of all large cities is found to be injurious.

Gentle exercise is highly serviceable, either in an open carriage or on horseback; and it will be most efficacious when it is taken, in progressive journies, through different parts of the kingdom.

Horse exercise, however, seems to be chiefly beneficial in those cases, where consumption is a secondary disease. It may also be useful in obviating an attack of phthisis, or in carrying off a dry husky cough in a person of a consumptive habit, when there is reason to suppose that no tubercles are yet formed. On the other hand, in the confirmed phthisis, or consumption, when the lungs are inflamed or ulcerated, much or violent exercise will be improper; and there have been instances where the death of the patient was evidently hastened by it. Riding on horse-back agitates the viscera more than walking, and is therefore preferable to it in many chronic diseases; but when a preternatural determination to the lungs has taken place, it will be liable to increase the evil.

If a patient is enfeebled, and rides in cold wet weather, he will rather be injured by it: if, in other
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more favourable seasons, he is fatigued after riding, his breathing is thereby rendered more frequent and difficult, his skin parched and dry, the palms of his hands hot, his cheeks flushed, his tongue dry, and if he perceives a greater inclination to drink than to eat, a more gentle exercise must be used; riding on horse-back must be continued no longer. In all cases, riding should be over before dinner.

If, after the exercise of riding, the patient's spirits are more gay, his appetite somewhat excited, his breathing is easy, his skin cool and soft, he may continue to ride whenever the weather will permit.

Sailing is much recommended: a pretty long voyage has frequently cured a consumption, after the patient was, to all appearance, in the last stage of that disease, and where medicine had proved ineffectual. With this view, the patient should change his climate with the seasons, going to the southern parts of the continent in the autumn; and returning to England or the most northern parts of the continent in the summer. This will be particularly adviseable, as he will, by this measure, unite the advantages of change of climate with those derived from progressive journeys.

If circumstances or inclination keep the patient in England, he should by all means go to such places in the spring, as are dry, and sheltered from the north-east winds; and in summer to more elevated and airy situations.

It is not sufficient that the patient breathes air that is fresh, and untainted with noxious vapours; it is also necessary that the atmosphere, to which he is exposed, be temperately and uniformly warm. At the approach, therefore, of cold weather, the patient should remove to a warmer climate; varying the situation, according as the vicissitudes of the season may render it necessary. The advantages to be derived from a change of climate, in these cases, are so great, that, when joined with due restrictions as to diet, it sometimes accomplishes a cure, in cases where medicine alone would have been of no avail.

Rice and milk, or barley and milk boiled, with a little sugar, is very proper food. Ripe fruits, roasted, baked, or boiled, as gooseberry and currant tarts, roasted apples boiled in milk, &c. are also proper. The jellies, conserves, preserves, &c. of ripe sub-acid fruits, should be eaten freely, and currant jelly, conserve of roses, preserved plums, cherries, &c. Good air, proper exercise, and a diet consisting chiefly of these and other vegetables, with milk, is the only course that can be depended on in a beginning consumption. A patient who has strength and resolution to persist in this course will not often be disappointed of a cure.

Should the patient's strength and spirits flag, he should be comforted with nourishing jellies, strong broths, &c. and his food and drink should be taken in small quantities, lest an overcharge of fresh chyle should oppress the lungs, and too much quicken the circulation of the blood.

Nothing should be suffered that might tend to cause a gloom or melancholy to affect the mind of the patient; it should be the business of all about him to promote cheerfulness and ease. Consumptions often originate, and are always aggravated by brooding over real, or perhaps, imaginary calamities.

A remark made by Dr. Fothergill is too judicious to be omitted in an account of this disease. It is, that
 "young delicate females, from the age of fifteen, or
 "sixteen, and upwards, are often subject to consump-
 "tions. When the disease has advanced considerably,
 "the menses, if they have made their appearance,
 "most generally cease. This alarms their female
 "friends, and they call upon the physician to use his
 "utmost endeavours for restoring the discharge; be-
 "lieving the cessation of it to be the immediate cause
 "of the phthical complaint. Induced by their soli-
 "citations, medicines have sometimes been administered,
 "that, without obtaining this end, have tended to
 "aggravate the distemper. This deficiency is often of
 "no real disadvantage in these cases; and in many the
 "evacuation would prove injurious, by diminishing the
 "strength

“ strength, which is already too much impaired. Even
“ small bleedings, at the regular periods, have often
“ done more harm than good. A sudden suppression
“ may require bleeding ; but when the evacuation fails
“ through want of strength, and from poverty of blood,
“ the renewal of it increases the disease.”

When the cough sets in the form of a catarrh, and appears to be occasioned by an increased secretion of a thin saltish irritating mucus, all judicious practitioners agree in recommending an attention to regimen, the free use of diluting liquors, mild emulsions, small doses of nitre, the taking away a few ounces of blood if there be much inflammation, the inhaling the steams of warm water, and the occasional use of such a dose of elixir paregoricum as will allay the irritation, and promote a gentle moisture on the skin. These methods will generally be found efficacious, especially if the patient's chamber is of a moderate temperature, and he carefully avoids exposure to a cold, damp, or raw air, till the complaint is removed. In cases in which the cough has been obstinate, and the inflammatory symptoms considerable, Dr. Simmons has often experienced the great advantages of the warm bath. When this is had recourse to, the patient should remain in it only a very few minutes, and go soon afterwards to bed ; but not with a view to force a sweat by an increased weight of bed-clothes, as is too often injudiciously practised.

Persons of a consumptive habit, who have had an attack of this kind at the beginning of winter, are particularly liable to a return of the complaint during the continuance of the cold season, on the slightest occasion, and with greater violence : a relapse is therefore carefully to be guarded against ; and nothing will be found to do this more effectually than the use of socks and a flannel under waistcoat.

The use of flannel or rather fleecy hosiery, has been condemned by several medical writers, as increasing the insensible perspiration ; but in the present case, to say nothing of some others in which it may not be

useful, it will in general be found to have the best effects. It will prevent a too great determination to the lungs, and should not be left off till the approach of summer.

In some few instances in which flannel was found to have a disagreeable effect, a piece of dimity, worn over the breast next the skin, prevented the return of colds and coughs in persons of a delicate habit, who had before been liable to them on the slightest occasions. In these cases, circumstances that are seemingly of the most trifling nature become of importance.

Dr. Fothergill observes, that the most benefit is obtained from medicine in the very beginning of the disorder; a cough is first excited by acrid serum, or by an inflammation; the acrid serum, if not soon diverted, will cause an inflammation; and if this inflammation terminates any other way than by a timely resolution, though the immediate consequences are seemingly small, they prove insurmountable, and proceed to a fatal issue. Though the inflammation ends in small tubercles, which with much caution may not disturb for many years, yet small irregularities, and that want of care which is observed in most till it is too late, subject them to the worst effects.

In the catarrhal cough, many practitioners are too eager to administer the Peruvian bark, with the view, as they term it, of bracing up the patient; but this never fails to increase the cough, and of course to do great and very often irreparable mischief. The oily remedies seldom fail to exasperate this cough, which at first is dry, frequent, and often extremely violent, but which seldom fails to give way to one or two gentle pukes, and the occasional use of mild purges. The cough, as in other cases, often continues from habit, after the cause that gave rise to it has been removed, and may then be checked by opiates.

The cough, in the first stage of a consumption, may sometimes be appeased by bleeding;* and the following

* In bleeding, however, the greatest caution and prudence are necessary, as, beyond all doubt, many have fallen victims to an intemperate

ing medicines will promote expectoration. Take fresh squills, gum-ammoniac, and powdered cardamum seeds, of each a quarter of an ounce; beat them together in a mortar, and add a little of any kind of syrup. Form this composition into pills of a moderate size, and let the patient take four or five of them two or three times a-day, according to his stomach.

The following mixture may likewise be used: Take lemon-juice, fine honey, and syrup of poppies, of each four ounces; let the whole simmer together in a saucepan over a gentle fire, and a table-spoonful of it be taken whenever the cough is troublesome.

Acids have a very good effect in this disease; as they equally tend to quench the patient's thirst, and to cool the blood. The vegetable acids, as apples, oranges, lemons, &c. are recommended as the most proper. If a patient should daily suck the juice of several lemons, he would find considerable advantage from it. Acid vegetables should be taken in abundance.

The patient's drink should be infusions of the bitter plants, as ground-ivy, camomile flowers, the lesser centaury, or water trefoil. These infusions may be drank at pleasure: they strengthen the stomach, promote digestion, rectify the blood, quench thirst, and effectually answer all the purposes of dilution. But if the patient spits blood, his common drink should be infusions or decoctions of the vulnerary roots, plants, &c.

Various are the opinions concerning the efficacy of Bristol water in this disease. Dr. Fothergill informs us, that he has seen many persons recover from pulmonary diseases after drinking these waters, whose cure seemed to be doubtful from any other process; and he thinks this circumstance, added to the general reputation of the Bristol waters in phthical cases, affords sufficient inducement to recommend the trial of them in the early stage of such complaints. It is, however, before

temperate use of the lancet, first introduced by Dr. Doar. The strength, the constitution of the patient, and the state of the symptoms, must be cautiously measured; and the quantity and repetition must be proportioned to them.

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the approach of a confirmed phthisis, that patients ought to repair to Bristol; otherwise a journey thither will not only be without benefit, but may even prove detrimental. Some have imagined that the journey, a better air, change of situation and of objects, have sometimes contributed to the patient's recovery; and these may doubtless be of advantage. It seems, however, that the water drank fresh at the pump, actually contains principles conducive to the recovery of patients affected with phthisical complaints. It seems to possess a slight calcareous stypticity, and perhaps the air it contains may also have an antiseptic quality. On the whole, it appears to be an efficacious medicine, and is often found of remarkable benefit to consumptive patients.

Dr. Simmons strongly recommends a frequent repetition of vomits. Many physicians have supposed that where there is any increased determination to the lungs, vomits do mischief; but our author is persuaded, that instead of augmenting they diminish this determination; and that much good may be expected from the prudent use of this remedy, than which none has a more general or powerful effect on the system. If any remedy is capable of dispersing a tubercle, he believes it to be vomits. The affections of the liver, that sometimes accompany pulmonary complaints, give way to repeated emetics sooner than to any other remedy. In several cases where the cough, and the matter expectorated, the flushing heats, loss of appetite, and other symptoms threatened the most fatal event; the complaints were greatly relieved, and in others wholly removed, by the frequent use of emetics. Other suitable remedies were indeed employed at the same time; but the relief the patients generally experienced after the emetic, was a sufficient proof of its salutary operation. By this, however, our author does not mean that vomits will be useful in every period of the disease, or in every patient. In general, it will be found that the earlier in the disease emetics are had recourse to, the more likely they will be to do good, and be less likely

likely to do harm. The cases in which this may be reckoned improper, are commonly those in which the disease is rapid in its progress; or in that stage of it, where there is great debility, with profuse colliquative sweats.

Dr. Temple, in his *Practice of Physic*, lately published, page 137, says, "I must embrace this opportunity of saying, that I have found the most beneficial effects from the early use of emetics, so much insisted on by Dr. Simmons."

He further says, "the earlier they are given in the disease the better"—and, "They are to be given in a morning, twice in a week, every other or every day, as the symptoms may indicate."

We may strictly forbid as before-mentioned, the use of a remedy commonly prescribed by people about the sick person, and that is, rum and milk taken in bed in a morning, for spirits are on every account pernicious.

The propriety of giving opiates in this disease is a disputed point. From some experience, and from the report of others, we can say, that when no inflammatory symptoms existed, they have been given with very good effect. They have allayed the cough, relieved the diarrhæa, and procured comfortable nights, without the ill effects laid to their charge by those who object to their use.

Concerning the bark, Dessault long ago observed, that it had been productive of great mischief in consumptive cases; and Dr. Fothergill, in a paper published by him on this subject, very judiciously remarks, that the bark is so far from curing the hectic arising from distempered lungs, that, according to the best of his observations, it not only takes up that time which might probably have been better employed in the use of other medicines, but for the most part aggravates the disease beyond remedy. Indeed it will be found, by every attentive observer, that, whenever pus, or any kind of matter excites an hectic, by being absorbed and carried into the circulation, the bark will never fail to

to exasperate the complaint, especially if it is accompanied with any degree of inflammatory diathesis, unless the matter has a free outlet from the system: as in the case of abscesses, for instance, in which we often find the bark productive of excellent effects. It is likewise well known to be used as a tonic, to obviate the effects of fluor albus, or any other immoderate evacuation in delicate persons, which, by enfeebling the system, very often lays the foundation of phthisis; but the moment we have reason to suspect that the lungs are ulcerated, it ought to be laid aside; and in the genuine tuberculous consumption, it is at all times inadmissible.

In phthical complaints, a prudent trial of the bark seems necessary. Small doses of the decoction, either alone, or joined with the saline mixture, &c. may be given. But if the breath becomes more tight and oppressed, the cough dry, the pulse more quick and hard, and especially if slight transitory pains or stitches about the thorax are more frequently complained of, a perseverance in the use of the bark will increase the disease. If such also should be the appearances in the progress of the disease, or, from whatever cause, if the bark is accompanied with such effects, the use of it ought to be withheld.

If, on the other hand, no pain, tightness, or oppression is perceived, and there appears a manifest abatement of the symptoms, it will be adviseable to proceed. The administration of this medicine, however, requires a judicious observer; and it ought neither to be given in the early inflammatory stage of this disease, nor be continued in any subsequent period, if it produces the effects above-mentioned. By its tonic or elastic virtues, it will often enable nature to conquer many difficulties. In confirmation of this remark, Dr. Fothergill farther observes, that he has seen it of use in promoting expectoration, when this became deficient from want of strength towards the end of peripneumonic fevers; but that it stops this discharge, changes slight wandering pains into such as are fixed, and increases them with all their consequences, in a variety of cases.

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The elixir of vitriol is often exhibited in consumptive cases, with no less impropriety than the bark. This medicine, from its astringency, is obviously improper in the inflammatory state of the disease. But in the latter stage, when a general tendency to putrefaction takes place, it is serviceable in resisting the effect; it restrains the colliquative sweats; and if the lungs are not injured past repair, it is allowed to be a very useful auxiliary.

It is common to load the patient's stomach with oily and balsamic medicines; which, instead of removing the cause of the disease, tend rather to increase it, by heating the blood; while they pall the appetite, relax the solids, and prove every way injurious to the patient. Whatever is used for removing the cough, besides riding and other proper exercise and regimen, should be medicines of a sharp and cleansing nature; as oxymel, syrup of lemon, &c.

With regard to drains, such as blisters, issues, and setons, that are so frequently recommended in disorders of the lungs, there is less danger of abuse from them, than from the practice of bleeding. The discharge they excite is not calculated to weaken the patient much; and the relief they have so often been found to afford, is a sufficient reason for giving them a trial. Blisters, it is well known, act in a twofold manner; by obviating spasm, and producing revulsion: Issues and setons act chiefly in the latter of these two ways; and in this respect their effects, though less sudden and less powerful at first, are more durable from the continuance of the discharge they occasion.

It is perhaps hardly necessary to remark, that, if much service is to be expected from either of these remedies, they must be applied early in the disease. The ingenious Mr. Mudge, who experienced the good effects of a large scapulary issue on his own person, very properly observes, that the discharge in these cases ought to be considerable enough to be felt. But it is seldom possible to prevail on the delicate persons, who are most frequently the victims of this disease, to sub-

mit to the application of a caustic. The discharge produced by a seton is by no means inconsiderable; and as in these cases there is generally some inflammatory stich, some part of the breast that is more painful or more affected by a deep respiration or breathing than the rest, a seton in the side, as near as can be to the seat of the inflammation, will be an useful auxiliary, and is often found to have a very good effect.

A NERVOUS CONSUMPTION.

THIS is a decay or wasting of the whole body, without any ulceration, or organical destruction of the solid vessels and viscera.

CAUSES. The causes are a weakness in the organs of digestion, from an undue supply of chyle to the blood; a diet that does not afford sufficient nourishment; tender and irritable nerves; a fretful temper; a defect of the mucus; excesses of the passions; too copious evacuations; breathing unwholesome air, indulging in spirituous liquors, &c.

SYMPTOMS. The signs in the beginning are, a decrease of strength, loss of appetite, without much fever, cough, or shortness of breath; though in the progress, when a consumption of the flesh hath gradually affected the whole habit, there is some degree of difficulty in the breathing; the urine is inconstant in its colour, though generally high, and small in quantity; sometimes it is pale and profuse; in time the blood grows hot and acrid for want of its due supplies, a hectic heat increases, as also a cough and difficulty of breathing. In children this disease frequently happens, and, besides the above-mentioned causes, they are subject to it from a sudden change from the breast to more solid food.

CURE. For the cure of a nervous consumption, a light and nourishing diet should be taken, with plenty of exercise in a free open air, and the use of such bitters as brace and strengthen the stomach; as the
Peruvian

Peruvian bark, hore-hound, gentian-root, camomile, &c. These may be infused in water or wine, and a glass of it drank often.

It will assist the digestion, and greatly promote the cure of this disease, to take twice a day, twenty or thirty drops of the elixir of vitriol, in a glass of wine or water.

Cheerful company, agreeable amusements, and riding, are, however, preferable to any medicines in this disease. We would therefore recommend, if it suits the convenience and circumstances of the patient, a long journey of pleasure, as the most probable means of restoring health.

When a consumption proceeds from another disease, which is frequently the case, as from the King's Evil, the scurvy, the asthma, the venereal disease, &c. due attention must be paid to the malady from whence it arises, and it must be treated accordingly.

If this disease is occasioned by excessive evacuations of any kind, such evacuations must not only be restrained, but the patient's strength must be restored by nourishing diet, gentle exercise, and generous cordials. The decoction of sarsaparilla, salop, chalybeate waters, the bark, and gentle riding, are proper.

The scrophulous and cancerous cases only admit of palliating, by keeping the circulation as low as the general health will admit. A thin light diet is the most proper, such as jellies of both vegetable and animal substances, broths, &c. not forgetting the bark, and vitriolic elixir, as corroborants.

A venereal taint is often an unsuspected cause, in which case mild mercurials, with sarsaparilla, and a milk diet will effect a cure.

THE ERYSIPELAS, OR SAINT ANTHONY'S FIRE,

THE Latins call this disorder *ignis sacer* when it is of the ulcerated kind. It is also called *zoster*, *zona*, or the girdle, shingles; in Switzerland it is named the

violet: others call it the rose, from its shining rosy colour. The true species is acute and inflammatory: the bastard kind is more chronic than acute.

Erysipelas, according to the accurate description of Dr. Cullen, is an inflammatory infection of the skin, with hardly any evident swelling; of a mixed, and not very bright red colour, readily disappearing upon pressure, but quickly returning again; the redness of no regular circumscription, but extending unequally; and continuing most constantly, to spread upon the neighbouring parts, with a pain like that of burning; producing blisters, sometimes of a small, sometimes of a larger size; always occasioning, as it goes off, a desquamation or peeling of the scarf-skin, and sometimes terminating in gangrene.

Every part of the body is liable to be attacked by this disorder, but the face is most frequently affected, the arm next, and then the feet and other parts. It sometimes surrounds the lower part of the abdomen, like a belt, and is then vulgarly called the shingles.

Autumn, or when hot weather is succeeded by cold and wet, are the seasons which favour this disease, and in which it most frequently happens. The sanguine and plethoric, young people, and pregnant women, are the most subject to it. Such as have been once afflicted with it are liable to have it again: sometimes it is a primary disease, and sometimes only a symptom of some other malady.

CAUSES. The causes are in general the same as those which produce other kinds of inflammations; but chiefly sudden cold succeeding a great heat or sweat, or obstructed perspiration. Tissot says it results from two causes; viz. an acrid sharp humour, which is commonly bilious, diffused through the mass of blood; and the humours not being duly discharged by perspiration. Excessive drinking, obstructed perspiration, or any thing that overheats the blood, may occasion an erysipelas. If any of the natural evacuations are obstructed, or even impeded, the same effect may probably be produced. The stoppage of accustomed artificial evacuations has a similar tendency.

External injuries of various kinds, as wounds, punctures, and even the slightest scratches, are often succeeded by this affection of the surrounding parts. The application of poisons, more particularly those of the animal kingdom, often produce this disease. In some cases, it has been supposed to be the consequence of violent passions of the mind.

SYMPTOMS. The symptoms of this disease are thus described by Tissot: It is sometimes but a slight indisposition which appears on the skin, without the person being sensible of any other disorder, and it most commonly breaks out in the face, or on one leg. The skin becomes tense or stiff, rough, and red; but this redness disappears on pressing the spot with a finger, and returns on removing it. A burning heat is felt in the part affected, which makes the patient uneasy, and sometimes hinders him from sleeping.

The disorder increases for two or three days, continues at its height one or two, and then abates: Soon after this, that part of the skin which was affected falls off in large scales, and the disorder terminates.

Sometimes the malady is more severe, beginning with a violent shivering, which is succeeded by a burning heat, a vehement head-ach, and sickness, which continues till the erysipelas appears, which sometimes does not happen till the second or third day: the fever then abates, and the sickness goes off; though frequently a less degree of sickness, or loathing, and of fever remain during the whole time of the increase of the disease.

When the inflammation and eruption happen in the face, the head-ach continues till the decline of the disease; the eye-lids swell, the eyes close, and the patient hath no ease. It often passes from one cheek to the other, and extends successively over the forehead, neck, and nape of the neck, under which circumstance the disease is of a more than ordinary duration.

Sometimes also, when it exists in a high degree, the fever continues, the brain is oppressed and obstructed, the patient raves, and the disease becomes extremely

extremely dangerous. A violent erysipelas on the neck brings on a quinsy, which is very grievous and often fatal. When it attacks the leg, the whole of it is swelled, and the heat and irritation from it extended up to the thigh.

Whenever the humour is considerable, the part it seizes is covered with small pustules, (*or blisters*) filled with a clear (*yellowish*) watery humour, resembling those which appear after a burn; these afterwards dry and scale off. Sometimes, when this distemper affects the face, the fluid which issues out of these pustules is thick and gluey, and forms a thick scurf and scab nearly resembling those of sucking children, and they continue fast on the face many days before they fall off.

When the disease is violent, it continues eight, ten, or twelve days at the same height, and is at last terminated by a very plentiful sweat, that may sometimes be predicted by a restlessness, attended with shivering and a little anxiety of some hours duration. In the progress of the disease the whole skin is very dry, and even the inside of the mouth.

An erysipelas rarely comes to suppuration; when it does, the suppuration is always unkindly, and much disposed to degenerate into an ulcer. Sometimes a malignant kind of erysipelas is epidemical, and then it often terminates in a gangrene. This distemper often shifts its situation; it sometimes retires suddenly, but the patient is uneasy and disordered; he hath a propensity to vomit, with a sensible anxiety and heat; the erysipelas appears again in a different part, and the patient feels himself quite relieved from the preceding symptoms.

But if, instead of re-appearing on some other part of the surface, the humour is thrown upon the brain, or the breast, he dies within a few hours; and these fatal changes and translations sometimes occur, without the least reason or colour for ascribing them either to any error of the patient, or of his physician. If the humours have been transferred to the brain, the patient immediately becomes delirious, with a highly flushed
visage,

visage, and very quick sparkling eyes; soon after he proves frantic, and goes off in a lethargy. If the lungs are attacked, the anxiety and heat are inexpressible. There are some constitutions subject to a very frequent and, as it were, an habitual erysipelas: if it often affects the face, it is generally repeated on the same side of it, and that eye is at length considerably weakened by it.

The erysipelas should be distinguished from the plague, and from inflammations of different kinds that happen on the skin.

This disease approaches suddenly, but with little disturbance, and attacks a person with a good habit; and when no nervous, membranous, or principal parts are affected, there is but little to be apprehended from it. Sometimes a convulsive disease, as an asthma, cholic, &c. hath been relieved by the approach of an erysipelas.

Danger is very considerable when this disorder is deeply seated, fixed on a sensible part, and the habit of body but indifferent. In some bad habits this disorder leaves behind it, a swelling in the foot or ankle, or both, which is troublesome and difficult to remove; by bad management it is easily and soon rendered fatal: frequent returns denote a disordered liver or gall-bladder: when it is seated in the face, a drowsiness often attends it, in which case there is danger of a phrenitis, or of a mortal lethargy. When it seizes the breast, particularly of women in child-bed, or who give suck, an abscess is the consequence for the most part. If the nostrils and mouth are dry, and the patient is drowsy, an inflammation of the brain is to be suspected: it is generally fatal within the seventh day, when the patient dies; and they who are often seized with it, at last die of it.

REGIMEN. The diet should be thin, and of a moderately cooling and moistening quality; roasted apples may be eaten freely; panado, chicken, or barley-broth, &c. will be very proper; but flesh, fish, strong liquor, spices, pickles, and all other things that may heat or inflame the blood are to be avoided. The drink may be whey, barley-water, small-beer, water-gruel. But if
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the pulse be low, and the spirits sunk, the patient must be supported with negus, and other things of a cordial nature.

The patient must neither be kept too hot nor too cold, either of these extremes tending to make the disease retreat, which is always to be guarded against. The patient should keep out of the bed during some hours in the day; and when the disease is mild, it will be sufficient to keep him within doors, without confining him to his bed, and to promote the perspiration by diluting liquors, &c.

CURE. Much mischief is frequently done by external applications in this complaint. Alarmed at the appearance of an inflammation, people think something ought to be immediately applied, not knowing or considering that all ointments, salves, and plasters, are of a greasy nature, and tend rather to obstruct and repel, than promote any discharge from the part. In an erysipelas the safer course is to apply nothing: at the beginning it is neither safe to promote a suppuration, nor to repel the matter too quickly.

The erysipelas, like the gout, should be treated with the greatest caution. Fine wool, or the softest flannel, are the safest applications to the part, as they defend it from the external air, and promote the perspiration, which has a tendency to carry off the disease.

Dr. Temple recommends an emetic or two to be given to the patient at the beginning, which he says will sometimes cut it short. He also advises as much of an erect posture as the patient can bear without inconvenience.

Bleeding is common in the erysipelas, but in this caution is required. If the fever be high, the pulse hard and strong, and the patient vigorous, it may be ventured on; but the quantity must be regulated by these circumstances, and the operation repeated as the symptoms may require. If the patient has been accustomed to strong liquors, and the disease attacks his head, bleeding is absolutely necessary.

Where

Where bleeding is necessary, it is also necessary to keep the body open, for which purpose emollient clysters, or small doses of nitre and rhubarb may be employed. Some indeed recommend very large doses of nitre in the erysipelas; but it is very apt to be offensive to the stomach when taken in large doses: it is allowed, however, to be an excellent medicine when the fever and inflammation run high.

From an admission of cold air, the erysipelatous matter is sometimes struck inwardly; when this happens, bleed immediately, apply blisters on the side of the neck; one on the part from whence the inflammation receded, and apply sharp cataplasms to the soles of the feet. In this case it is absolutely necessary to open the body; if clysters and mild purges fail to have this effect, recourse must be had to stronger ones.

When the inflammation cannot be discussed, and the part has a tendency to ulcerate, a suppuration ought to be promoted, which may be done by the application of ripening poultices with saffron, warm fomentations, &c. When the pulse is low, cordials, and the warmer perspiratives should accompany the use of blisters.

When it is perceived by the black, blue, or livid colour of the part, that a mortification is to be apprehended, the Peruvian bark must be administered. It may be taken with acids, or in any other form more agreeable to the patient; but it must not be trifled with, as the patient's life is then at stake. A dram may be administered every two hours, if the symptoms are threatening; and cloths dipped in warm camphorated spirits of wine, or the tincture of myrrh and aloes may be applied to the part, and frequently renewed. Poultices of the bark would be very proper in this case, or the part affected may be fomented with a strong decoction of it.

From the nature of this disease, and from the peculiarities in the skins of different persons, much caution is required in the application of external remedies. When the scarf-skin is raised in blisters, and the serum begins to transude, or run, then apply absorbing ex-

ternal medicines, such as chalk finely powdered, or a thin rag may be spread over the inflamed part, and the chalk, or fine flour, sprinkled upon the rag: or, instead of these, flannels wrung out of a decoction of elder and camomile flowers, may be applied as often as they grow cool. Among liquids, Goulard's saturnine water is one of the best applications, and may safely be used in every case where a resolution of the inflammation is the aim.

If a gangrene is apprehended, besides the inward use of camphor and the bark, spirituous and strengthening applications should be employed externally; such as mixtures of lime-water with camphorated spirit, or camphorated spirit mixed with tincture of myrrh, or an infusion of the bark.

When an erysipelas attacks, or is repelled to the lungs, the only chance of life is to divert it from thence, and fix it on the external parts: in this case, besides the fever, pain in the breast, and other violent symptoms, the patient frequently faints; and what is worse, he rarely survives his sufferings.

"Erysipelas," says Mr. Parkinson, "never appears in aged persons, nor in those who have lived freely, without denoting such a state of the system as must demand all the aid that can be obtained, from the conjoined powers of experience and judgement.— Its occurrence in youth and middle age is seldom dangerous, except when accompanied with much fever, or when it extends over a considerable surface." *Med. Adm.* 278.

Those who are liable to frequent attacks of this disease should carefully guard against all violent passions, and abstain from strong liquors, or fat, viscid, and highly nourishing food, and carefully avoid the extremes of heat and cold.

In the scorbutic erysipelas, little more will be required than gentle laxatives, and such things as purify the blood, and promote the perspiration. When the inflammation has been thus checked by opening medicines, the decoction of woods may be drank, and after that a course of bitters will be found salutary.

Very

Very young children are sometimes attacked with this disease: it begins in small red patches, with hardly any elevation, and by no means of such an appearance as to be likely to excite any alarm; except in the minds of those who know the dangerous nature of this disease. Parents should therefore be particularly careful, on its first appearance, to apply immediately for the best advice and assistance.

PHRENITIS, PHRENZY, OR INFLAMMATION OF THE BRAIN.

THE true phrenitis, or inflammation of the membranes or substance of the brain, is very seldom an original disease; but is a symptom of others much more frequently; as the inflammatory, eruptive, or spotted fever, &c. It is often, however, an original or primary disease in warm climates, and is most incident to those about the prime or vigour of life.

CAUSES. Persons of a hot and bilious habit of body, and such as are of a passionate disposition, are apt to fall into a phrenzy. In equal danger are those who use much spices, or are given to hot and spirituous liquors; who have been exposed more than usual to the sun, or obliged to undergo immoderate studies or watchings; who are subject to head-achs, or in whom some customary discharges or evacuations have been stopped or checked; or the disease may arise from some injury offered to the head externally, as blows, or bruises on the head. When repellents are imprudently used in an erysipelas, gout, &c. an inflammation of the brain is sometimes the consequence.

Dr. Pringle observes, that the phrenitis, when considered as an original disease, is apt to attack soldiers in the Summer season, when they are exposed to the heat of the sun, and especially when asleep and in liquor. A symptomatic phrenzy is also more frequent in the army than elsewhere, on account of the violence done to all fevers, when the sick are carried in waggon

from the camp to an hospital, where the very noise, or light alone, would be sufficient, with more delicate natures, to raise a phrenzy.

SYMPTOMS. The signs of an impending phrenzy are immoderate and continual watchings; or, if any sleep is obtained, it is disturbed with dreams, and gives no refreshment; a great and slow respiration as if proceeding from the bottom of the breast; the pulse sometimes small and slow, sometimes quick and frequent; a suppression of urine and forgetfulness.

The distemper may be known by the following signs: The veins of the head swell, and the temporal arteries throb much; the eyes are fixed, sparkle, and have a fierce aspect; the speech is incoherent, and the patient behaves very roughly to the by-standers, with furious attempts to get out of bed, not indeed continually, but returning as it were by paroxysms; the tongue is dry, rough, yellow, or black; there is a coldness of the external parts, a proneness to anger; chattering of the teeth; a trembling of the hands, by which the sick seem to be gathering, and actually do gather the naps off the bed-clothes. A remarkable quickness of hearing is a common symptom of this disease, but that seldom continues long. Though the tongue is often black and dry, the patient seldom complains of thirst, and even refuses drink. The mind is principally engaged on such objects as have before made a deep impression on it, and sometimes, from a sudden silence, the patient becomes suddenly outrageous.

Every kind of phrenzy, whether idiomatic or symptomatic, is attended with a great degree of danger; and, unless removed before the fourth day, a gangrene readily takes place, and the patient dies delirious. The following are the most fatal symptoms: a continual and furious delirium, with a total want of sleep, thin watery urine, the urine and stools running off involuntarily, or a total suppression of these excretions; a ready disposition to become stupid, or to faint; trembling, rigour, chattering of the teeth, convulsions, hickup, coldness

coldness of the extremities, trembling of the tongue, shrill voice, a sudden cessation of pain, with apparent tranquillity.

The following are favourable symptoms: Sweats; apparently critical, breaking out; a seeming effort of nature to terminate the disease by a looseness; a copious discharge of blood from the nose, the bleeding piles, a plentiful discharge of urine which lets fall a copious sediment. In women, the disease is sometimes carried off by a profuse flow of the menses.

When an inflammation of the brain proceeds from an inflammation of the lungs, of the intestines, of the throat, &c. it is occasioned by a translation of the disease from these parts to the brain, and generally proves fatal. Hence appears the necessity of proper evacuations, and the great danger of repellents in all inflammatory diseases.

It is very justly observed, by the author of *Medical Admonitions*, that "Some of the symptoms of this disease are frequently to be met with, accompanied by circumstances of so ambiguous a nature, that, unless the observer has discernment sufficient to enable him to mark the real state of the system, his well-intended exertions may soon destroy his unfortunate patient." *Med. Adm.* 99.

REGIMEN. The patient must be kept very quiet: noise, tumult, bustle, and every thing that affects the senses, or disturbs the imagination, increases the disease. Too much light is injurious; but it is not meant that the patient is to be kept too much in the dark, lest it should occasion a gloomy melancholy, too often the consequence of this disease. Light, noise, and heat must be particularly avoided.

The patient should be soothed and humoured in every thing: contradiction will ruffle his mind, and increase his malady. The food should be light; as panado, and water-gruel sharpened with currant-jelly, lemon-juice, ripe fruits roasted or boiled, jellies, &c. The drink should be small, diluting, and cooling, as whey, barley-water, &c.

CURE.

CURE. This is not different from the cure of inflammation in general; but here the most powerful remedies are to be immediately applied. Large and repeated bleeding are especially necessary, and these too taken from vessels as near as possible to the part affected.

The opening the temporal artery has been recommended, and with some reason; but as the practice is attended with some inconveniencies, perhaps the opening of the jugular veins may prove more effectual; with which, however, may be joined the drawing of blood from the temples by cupping and scarifying. When the pulse and spirits of the patient are so low, that he cannot bear bleeding with the lancet, leeches may be applied to the temples; which not only draw off the blood more gradually, but by being applied nearer to the part affected, generally afford more immediate relief.

Nothing more certainly relieves in this disease than a free discharge of blood from the nose. If it should flow voluntarily, it must not be stopped or checked, but rather promoted, by applying cloths dipped in warm water to the part. When the blood does not come spontaneously, it may be provoked by putting a straw, &c. up the nostril.

The taking off the force of the blood in the vessels of the head, by an erect posture is generally useful.

A discharge of blood from the hæmorrhoidal veins should also be promoted. If the patient has been subject to the bleeding piles, and that discharge has been stopped, endeavours should be used to restore it; as the application of leeches to the part, sitting over the steams of warm water, &c.

If the inflammation of the brain should be occasioned by the stoppage of natural or artificial evacuations, as the menses, issues, setons, &c. all methods must be taken to restore them as soon as possible, or to substitute others in their stead.

Let the patient's body be kept open by stimulating clysters, or smart purges; and small quantities of nitre
ought

ought frequently to be mixed with his drink. Two or three drams, or more, if the case be dangerous, may be used in the space of twenty-four hours.

Blistering is also useful, but chiefly when applied near the part affected. Cold substances have been applied to the head with success; and the application of such refrigerants as vinegar is certainly proper. The head should be shaved and frequently rubbed with vinegar and rose-water; and cloths, dipped in the same mixture, may also be applied to the temples. The feet ought frequently to be bathed in luke warm water, and soft poultices of bread and milk may be kept constantly applied to them.

Opiates are very hurtful in every inflammatory state of the brain: On the whole, however, it must be remarked, that practitioners are very uncertain with regard to the means proper to be used in this disease; and the more so, that the symptoms by which the disease is commonly judged to be present, appear sometimes without any internal inflammation; and, on the other hand, dissections have shewn that the brain has been inflamed where few of the peculiar symptoms of inflammation had appeared before.

THE OPHTHALMIA, OR INFLAMMATION OF THE EYES.

CAUSES. External injuries frequently occasion this disease; as blows, bruises, burns, &c. It is sometimes the consequence of dust, quick-lime, hair, or other irritating substances getting into the eyes. The stoppage of customary evacuations. Looking steadfastly on snow, the sun, a clear fire, or any bright object, may occasion this malady. Strong light, especially a sudden transition from extreme darkness to extreme light, will often have the same effect.

Sitting up late, immoderate reading or writing by candle-light, drinking spirituous liquors, and excess of venery, are prejudicial to the eyes. The acrid fumes
of

of metals, and of several kinds of fuel, are also detrimental. A venereal taint, or a scrophulous, or gouty habit will sometimes occasion an inflammation in the eyes. A hurt occasioned by the hairs in the eye-lids turning inwards, may produce the same effect.

An inflammation in the eyes is sometimes epidemic, especially after wet seasons, and proves infectious to those who inhabit the same house with the patient. A moist air, sharp cold winds, damp houses, &c. may produce such inflammation. It may also be occasioned by the small-pox, measles, scrophula, or phrenitis. Inflammation of the eyes may also be the consequence of morbid acrimony existing in the system.

SYMPTOMS. This disease is attended with a fulness of the vessels of the eye, redness, violent intense pain, especially upon moving the ball of the eye, and a sensation of something sharp having got within the eye-lids, an effusion of tears, and an inability to bear the light. When the pain is very violent, and the inflammation occupies the greatest part of the eye, it sometimes brings on head-ache, fever, and delirium.

A slight inflammation, especially from an external cause, is easily cured; but when it is violent, and continues long, it often leaves the specks on the eyes, or dimness of sight; and sometimes produces total blindness.

REGIMEN. All heating, spirituous, and aromatic food must be avoided; a cooling liquid diet will be necessary. The patient's food should consist chiefly of mild vegetables, weak broths, and gruels: his drink may consist of balm-tea, barley-water, whey, &c.

The patient's apartment must be darkened, or the eyes shaded from the light, and all glaring objects, by means of a cover. He should not be permitted to look at a candle, the fire, or any luminous object. He should be kept quiet, avoid smoke; and encourage sleep as much as possible.

The defending of the eyes from the light is a circumstance of no small importance. The diseased eye, however closely secluded from light, will always be injured

injured by the action of light on the sound eye: since each eye will sympathise with the other in all its motions. The patient should therefore, as already observed, confine himself to a dark room.

CURE. Bleed according to the strength and quickness of the pulse. Besides taking blood from the arm, leeches may be applied to the external angles of the eyes. As soon as the blood is taken away, opening and diluting medicines should be given. The patient may take a dose of Glauber's salts, and cream of tartar, every second or third day, or a decoction of tamarinds with fenna. Should these be found disagreeable, gentle doses of rhubarb and nitre, or any other mild purgative, will answer the same purpose. The patient at the same time must drink freely of water-gruel, tea, whey, or any other weak diluting liquor. He should also, at bed-time, take a large draught of very weak wine-whey to promote perspiration. The feet and legs of the patient may be placed in moderately warm water every night, and his head may be shaved twice or thrice a week, and afterwards washed in cold water.

A blister, when applied to relieve inflammation in the eyes, is most effectual when laid upon the fore-part of the head, and kept open several days; apply the blister from the crown to the forehead, having first shaved the part.

A seton between the shoulders has often produced very extraordinary effects in this disease; it has even restored the sight of patients who have been blind for a considerable time.

As an external remedy, the vegeto-mineral water of Goulard is almost the only one needful; begin with it very mild, and increase its strength so as to avoid irritation. Whether inflammations are phlegmonous, scrophulous, cancerous, erysipelatous, from bruises, &c. this water is of singular efficacy.

When the inflammation is deep, violent, and dangerous, the eye being almost deprived of sight and sensibility, happy effects have been found from the use of warm camphorated spirit of wine mixed with the

Peruvian balsam. Weak solutions of camphor abate these inflammations; but a free use of it increases them. Dr. Kirkland recommends a small quantity of Glauber's salts, in fine powder, to be blown into the inflamed eye; he observes, that at the first the inflammation seems to be increased by it, but soon a discharge of lymph follows, and the next day the inflammation is much abated, or gone.

When the heat and pain of the eyes are intolerable, a poultice may be applied of bread and milk, softened with sweet oil or fresh butter; and they may be bathed with luke-warm milk and water in the morning.

If the patient cannot sleep, he may take twenty or thirty drops of laudanum, or two spoonfuls of the syrup of poppies, over night, more or less according to the age, or the violence of the symptoms.

Opium is said by some not to ease pain in the eye; but that this symptom is relieved by the external use of aloes; however, it is clear from experience, that small quantities of opium, mixed with any cooling liniment, speedily abates inflammation in this organ.

When a corroding acrimony is observed in the humour that is discharged, the eye may now and then be washed with a thin solution of gum arabic, or the mucilage of quince-seeds.

If the eye remains very weak after this inflammation abates, the best applications are, the alum curd, which may be spread thin on a rag, and applied over the eyes every night; and a solution of alum in the proportion of a dram to half a pint of water, to which may be added the white of one egg; and to finish the cure, the patient may bathe in the sea.

Dr. Buchan recommends the following method, *viz.*
 "After the inflammation is gone off, if the eyes still
 "remain weak and tender, they may be bathed every
 "night and morning with cold water and a little brandy,
 "six parts of the former to one of the latter. A me-
 "thod should be contrived by which the eye can be
 "quite immersed in the brandy and water, where it
 "should be kept for some time. I have generally found
 "this,

“this, or cold water and vinegar, as good a strengthener of the eyes as any of the most celebrated collyriums.”

A gouty ophthalmia, or inflammation of the eyes, requires that the gout, if possible, be brought into the extremities, and then the disorder in the eye immediately disappears: if the inflammation is violent, bleed, purge with aloetics, and wash the eye with a mixture of warm water two parts, and brandy one part. When a translocation of rheumatic matter from the hip, or elsewhere, is the cause, blisters may be applied to, or near the part whence the rheumatism receded, a seton may be fixed under the lower jaw, and the bark with guaiacum may be given.

The ophthalmia subsequent to blows on the head, by which the meninges are hurt, is a sign of death. When in the beginning of the small-pox this disorder is attendant, the consequence is generally fatal. When attended with long and violent head-achs, blindness is to be feared. When an ophthalmia is an original disease, when the temples ach, the forehead itches, and the body sweats at nights, there is danger even of life.

If an inflammation of the eye proceeds from a scrophulous habit, it often proves very obstinate. The patient's diet, in this case, must not be too low, and he may be permitted to drink small negus, or now and then a glass of wine. The most proper medicine is the Peruvian bark, which may either be given in substance, or thus prepared:

Boil an ounce of bark in powder, with two drams of winter's bark, in a quart of water till reduced to a pint; when nearly boiled enough, add half an ounce of liquorice root sliced. Strain the liquor, and let the patient take two, three, or four spoonfuls, according to his age, three or four times a day: and this medicine generally requires to be continued for a considerable length of time to produce any lasting effects.

Dr. Cheyne says, “That Æthiops mineral never fails in obstinate inflammations of the eyes, even scrophulous ones, if given in a sufficient dose, and duly persisted
“in.”

"in." There is no doubt but this, and other preparations of mercury, may be of singular use in ophthalmias of long continuance; but they should be administered with great caution, and by persons of skill.

Persons who are liable to frequent returns of this disease should constantly have an issue in one or both arms: they will also find bleeding or purging very beneficial in the spring and autumn.

Much injury is often done by external applications in this disease; almost every person pretends to be possessed of an infallible remedy for sore eyes, and those who labour under such a calamity eagerly adopt any mode of treatment which comes so strongly recommended, as those pernicious eye-waters and ointments generally are. They try one experiment, then another; and continue to be misled by ignorant, though perhaps well-meaning individuals, till they suffer severely for their credulity. Sight is too valuable to be trifled with!

To prevent inflammation in the eyes, the following cautions should be observed. When they are disposed to be easily inflamed, a long and earnest exercise of them should be avoided: highly illuminated and vivid subjects should be viewed as little as possible; and even long poring on duller subjects should be avoided. Acrid fumes and vapours, particularly the smoke of tobacco, &c, are hurtful.

Children who have by too much indulgence acquired an obstinate and untoward disposition, frequently aggravate this disease, and perhaps occasion a distressful termination of it. "The inflamed eye," says Mr. Parkinson, "from which every stimulus should be abstracted as carefully as possible, is by fretting kept continually suffused with briny tears. To be convinced how much injury this must occasion, it is only necessary to recollect, that redness and tenderness of the eyes and eye-lids are effects which always succeed to this mode of expressing distress. Children who are not under due restraint, will also always considerably aggravate the evils under which they suffer, by constantly rubbing the inflamed eye with their hands; a practice

“ a practice which children of this description generally
“ have recourse to, expecting thereby to remove the
“ pain and inconvenience they suffer.” *Med. Adm.* 534.

He farther intimates, that blindness is not unfrequently the consequence of parents losing, by their mismanagement, the necessary sway over the minds of their children. Children thus imprudently educated, are much more exposed to accidents than others, in consequence of the little attention they generally pay to the directions and remonstrances of their attendants. From the unconquerable temper of a child, his sufferings are frequently redoubled, and the mind of the too indulgent parent more cruelly tormented: By ill-applied tenderness the critical minute is often allowed to pass, in which, by some trifling operation, accompanied with a little temporary increase of pain, certain relief might have been obtained.

In the advanced stages of the small-pox, when a troublesome heat and itching takes place, if a child is without patience, his little nails are employed to overpower the irritation of the skin, and with such vehemence that the skin becomes more inflamed, and the number of pustules must be considerably multiplied. When such an event is apprehended, parents must not rely on the most vigilant attention of the nurse for the prevention, for, in a moment, whilst her head is turned, the mischief may be accomplished. Something should, therefore, be contrived to secure the hands of the child, and render their approach to the face impossible. This step the too fond parent will perhaps object to, because the little sufferer's distress is for a short time increased: he struggles, indeed, for a while, but when he finds his exertions ineffectual, he tamely yields to his confinement. Children, even of violent dispositions, frequently submit to this species of coercion with a becoming grace.

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THE QUINSEY, OR INFLAMMATION OF THE THROAT.

THIS disease is commonly occasioned by cold externally applied, particularly about the neck. It more especially affects the young and sanguine; and a disposition to it is often acquired by habit. It occurs especially in the spring and autumn, when vicissitudes of heat and cold frequently take place.

CAUSES. The most frequent causes of this disease are, a sudden cooling of the body, and especially of the throat and parts adjacent, after excessive heat; wet cloaths; damp beds; moist air; drunkenness; an improper use of strong sternutatory powders, or powders to promote sneezing; acrid or irritating food; and, in general, whatever produces other inflammatory disorders, as an obstructed perspiration, or any thing that heats and inflames the blood, and a luxation or dis-jointing of the neck.

An inflammation of the throat is often occasioned by omitting some part of the covering usually worn about the neck. Singing, speaking loud and long, or whatever strains the throat, may also cause an inflammation of that organ. It may also proceed from pins, bones, or other sharp substances sticking in the throat; by sitting near an open window, or in a room newly plastered or lately washed. This disease is sometimes epidemic and infectious.

SYMPTOMS. The symptoms of this disease are a pain and difficulty of swallowing, a redness and swelling in the throat, frequent inclination to swallow, soreness of the throat, and pain sometimes shooting into the ear, with a troublesome clamminess of the mouth and throat. The swelling in the tonsils is sometimes so great as to prevent the patient from speaking, and in some cases the respiration or breathing is so much impeded by it, that he cannot lie down for fear of suffocation. A constant nausea, or inclination to vomit attends

attends the patient, and the drink, instead of passing into the stomach, is often returned by the nose.

The pulse is quick and hard, with other symptoms of a fever: if blood be let, it is generally covered with a tough coat of a whitish colour, and the patient spits a tough phlegm.

Laborious breathing, with straitness of the breast, and anxiety, proclaims great danger: while the patient breathes easy, though the pain in swallowing be very great, there is not so much danger. If the quinsy is occasioned by some other disease, which has already weakened the patient, the danger is very great. The fatal symptoms are, a frothing at the mouth, a swelled tongue, a pale ghastly countenance, and coldness of the extremities.

It is distinguished from the putrid sore throat by the absence of the ulcers, and erysipelatous eruptions, and by the strength of the pulse.

REGIMEN. The food should be light, and in small quantity; the drink plentiful, weak, and diluting, and mixed with acids. The patient should be kept still, and should speak but little; and that little should be in a low voice: a degree of warmth sufficient to promote a constant gentle sweat, is proper. It is peculiarly necessary that the neck be kept warm, by wrapping round it several folds of soft flannel; a circumstance which alone will frequently remove a slight complaint of the throat. Wrapping a stocking about the throat of a night, when any uneasiness is felt in the throat, is an excellent custom. So effectual is this remedy, in these cases, that it operates like a charm, and is deservedly held in the greatest esteem.

Black currant jelly, kept constantly in the mouth, and swallowed gradually, or mixed in the patient's drink, is much approved for complaints of the throat. When that cannot be had, the jelly of red-currants, or of mulberries, may supply its place.

Gargles for the throat should be used three or four times a day. They may be made of sage-tea, with a little vinegar and honey; or by adding to half a pint
of

of the pectoral decoction two or three spoonfuls of honey. If the patient be troubled with tough viscid phlegm, a tea-spoonful of the spirit of *Sal Ammoniac*, will render the gargle sharper and more cleansing.

CURE. Here some bleeding may be necessary; but large and general evacuations are seldom beneficial.

Sir John Pringle recommends a thick piece of flannel, moistened with two parts of common sweet oil, and one of spirit of hartshorn, (or in a larger proportion if the skin will bear it) applied to the throat, and renewed once every four or five hours. By this means the neck, and sometimes the whole body is put into a sweat, which, after bleeding, either carries off or lessens the inflammation.

The body should be kept gently open, by giving the patient for his common drink a decoction of figs and tamarinds, or small doses of rhubarb and nitre; which may be increased according to the age and strength of the patient, and repeated till they have the desired effect.

Sal Prunel, or purified nitre, swallowed gradually as it dissolves in the mouth, promotes the discharge of saliva, and answers the purpose of a gargle, whilst it abates the fever by promoting the discharge of urine.

In violent inflammations of the throat, blistering on the back, neck, or behind the ears, is of great use; and in bad cases, a blistering plaister should be laid quite across the throat, from ear to ear. When these plaisters are taken off, the parts may be kept running by the application of issue ointment till the inflammation is gone, otherwise there may be danger of a relapse.

If a suppuration is likely to take place, the patient should frequently inhale the steam of warm water; and if in that case the swelling of the tonsils should be so great as to endanger suffocation, or prevent swallowing, they should be scarified, or they may be made to break by exciting vomiting.

When the tumour is so great, before it breaks, as to prevent any thing from getting down into the stomach, the patient must be supported by nourishing clysters

clysters of broth, or gruel, with milk, &c. Patients have thus been supported for several days, till the tumour has broke, and afterwards they have recovered. But if the breathing, as well as the swallowing, be prevented by the tumour, and the danger of suffocation is imminent, nothing can save the patient's life, but opening the *trachea* or wind-pipe.

When a difficulty of swallowing is not attended with any acute pain or inflammation, it is generally owing to an obstruction of the glands about the throat, and only requires that the part be kept warm, and the throat often gargled with something that may stimulate the glands, as a decoction of figs with vinegar and honey; to which may be added a little mustard, or a small quantity of spirits: but this gargle is never to be used where there are signs of inflammation. This species of Angina is variously named by the common people, as the falling down of the almonds of the ears, the pap of the throat, &c.

Those who are subject to inflammations of the throat, should avoid every kind of intemperance, and have frequent recourse to purging and other evacuations. They ought also to beware of catching cold, and abstain from aliment and medicines of an astringent or stimulating nature. They would also do well to wear a ribband dipped in hartshorn, or a piece of flannel, constantly about their necks.

The practice of bathing the feet and legs in lukewarm water should by no means be neglected. If people would be careful to keep themselves warm, wrap up their throats with flannel, bathe their feet and legs in warm water, and use a spare diet, with diluting liquors, at the beginning of this disease, it will seldom proceed to an alarming height, or be attended with any danger. Dr. Temple is of opinion that, in the beginning of this disease, full vomiting is often of essential service; and, after the abscess is broke, a gentle cathartic should be given. *Temple's Pract. of Physic*, 38.

Dr. Home recommends the gum guaiacum as a specific in this disease: Half a dram of the gum in powder to be made into an electuary with the rob of elder berries, or the jelly of currants, for a dose, and repeated occasionally.

THE MALIGNANT QUINSEY, OR PUTRID ULCEROUS SORE THROAT.

THIS disease is more common in the latter part of autumn, than at any other time of the year. Children are more liable to it than adults, females than males; and the delicate than those who are hardy and robust.

CAUSES. The cause of this disease is specific contagion; it is generally communicated by infection; when it is not, it most probably arises from cold, in habits pre-disposed to the disease. Whatever tends to produce putrid or malignant fevers, may occasion the putrid ulcerous sore throat; as neglect of cleanliness, unwholesome air, damaged provisions, &c.

SYMPTOMS. This disease is ushered in with alternate successions of heat and cold, shivering, sickness, great anxiety, vomiting and looseness; and these are generally the first symptoms of the disease. At the same time a stiffness is felt in the neck, with an uneasiness in the throat, tightness and sense of strangulation. The symptoms of inflammation in the throat are at first a fiery redness, sometimes without much swelling, sometimes with a pretty considerable, but puffy one, which does not prevent the swallowing, or the breathing in any great degree. A number of white, or ash-coloured spots soon make their appearance upon the inflamed parts; these run together and spread, covering almost the whole with whitish sloughs, which, falling off, discover deep ulcerations, that appear to have eat deep into them; the breathing and speaking are attended with a peculiar noise and hoarseness; from which circumstance the Spaniards have named this disease the Garotillo. The eyes are red, heavy, and
watery,

watery, and the pulse in general small, quick, and fluttering: the countenance is often full and bloated, sometimes pale and sunk; and the breath, in the progress of the disease, becomes intolerably offensive even to the patients themselves. A slight degree of delirium often attends this disease.

The putrid ulcerous sore throat may be distinguished from the inflammatory, by the vomiting and looseness with which it is generally ushered in; the foul ulcers in the throat covered with a white or livid coat; and by the extreme weakness of the patient; with other symptoms of a putrid fever.

As the symptoms proceed, they are generally attended with a looseness, the membrane of the nostrils is inflamed, a watery stimulating fluid runs from it, exoriated the nostril and lips; and sometimes hæmorrhages ensue; which are often fatal if they arise the third or fourth day, or afterwards. In infants there is frequently a purging of thin acrid matter, excoriating the anus and neighbouring parts.

On the second, or third day, or sometimes later, an efflorescence or eruption appears on the neck, arms, breast, &c. of a colour resembling the stain of the juice of raspberries, which extends to the fingers' ends, and the hand and fingers are stiff. It, however, usually continues four days and then goes off. The ulcers of the throat become livid or black, and sometimes gangrene to a considerable degree takes place; symptoms of great putridity come on, and under them the patients sink often on the third day, sometimes later; most frequently on the seventh, and are carried off sometimes by a putrid looseness, and sometimes by hæmorrhages from the nose and mouth or other parts.

When the ulcers appear of a milder kind, that is if they do not assume a livid hue, or shew a tendency to gangrene; if the patient discharges from the mouth much thin pituitous matter; if the fever, delirium, anxiety, and restlessness are not great; if the breath is not very offensive, or the symptoms of putridity high; if upon the appearance of the eruption, the fever suffers

a remission, and the sloughs cast off in a kindly manner; and, above all, if the eye retains its clearness and lustre, we may hope for a favourable termination of the disease; and in this state of things it often finishes its course, on or before the seventh day, by gentle sweats, and an intolerable itching of the skin; and in a few days the sloughs separate from the ulcers in the throat, and sleep and other marks of returning health appear.

But this disease is extremely fallacious, and we must not put too much confidence in favourable symptoms at the beginning, as it frequently changes very suddenly from a mild to a highly malignant state.

REGIMEN. In this disease the patient must be kept quiet, and chiefly in bed; the air of the room being occasionally purified by opening the windows, and by the vapours of myrrh, rosemary-flowers, or vinegar. His food should be nourishing and restorative; as sago gruel with red wine, strong broths, jellies, &c. But previously to the swallowing of nutriment, antiseptic gargles and injections should be very sedulously employed for clearing away the sharp and septic humour from the mouth and throat, to prevent, as much as possible, its being swallowed; since, from the escape of it into the alimentary canal, a most troublesome and dangerous diarrhæa frequently occurs towards the close of the complaint. His drink ought to be generous, and of an antiseptic quality; as red wine negus, white wine whey, &c.

CURE. The curative indication will be to counteract the putrid tendency, attending at the same time to particular symptoms. All evacuations, as bleeding, purging, &c. are not only useless, but detrimental. The debility with which this disease is attended, renders all evacuations by bleeding and purging improper, except in a few instances where the debility is less, and the inflammatory symptoms more considerable. The putrid matter descending into the stomach and intestines may be evacuated by gentle emetics and laxatives. In the beginning, however, if there is nausea, or inclination to vomit, let the stomach be cleansed

cleansed by an infusion of green tea, camomile flowers, or carduus benedictus; or, if these are found insufficient, let the patient take a few grains of the powder of ipecacuanha, or any other gentle vomit. Cooling medicines, as nitre and cream of tartar, are hurtful. Generous wine, &c. may be used with safety, and ought never to be neglected.

When the disease is mild, let the throat be gargled with an infusion of sage and rose leaves, adding to a gill of it a spoonful or two of honey, and a sufficient quantity of vinegar to make it agreeably acid; but if the symptoms are urgent, the sloughs large and thick, and the breath very offensive, the following gargle is recommended by Dr. Buchan:

To six or seven ounces of the pectoral decoction, when boiling, add an ounce of contrayerva root; let it boil for some time, and afterwards strain the liquor; to which add two ounces of white wine vinegar, an ounce of fine honey, and an ounce of the tincture of myrrh. This ought not only to be used as a gargle, but a little of it should be frequently injected with a syringe to clear the throat, before the patient takes any meat or drink. This method is particularly necessary for children, who cannot use a gargle.

The patient may also be directed to inhale the steams of warm water and vinegar; and the fumes of burning myrrh, frankincense, and other things of the same kind.

If the putrid symptoms are alarming, and the disease becomes dangerous, Peruvian bark is the only medicine to be relied on. It may be taken in substance, if the patient's stomach will bear it. If not, an ounce of bark grossly powdered, with two drams of Virginian snake-root, may be boiled in a pint and a half of water, to half a pint; to which may be added a tea spoonful of the elixir of vitriol; and a common tea cupful of this may be taken every three or four hours.

Dr. Fordyce, in his *Elements of the Practice of Physic*, says, it is a more successful practice to exhibit as large a quantity of the bark as the patient's stomach will

will bear, at least an ounce in twenty-four hours, and it should be exhibited in substance if possible at the interval of every hour or two hours. *Fordyce's Elem.* 314.

When children are the subjects of this disease, as in general they cannot take the bark, it should be given in doses, adapted to circumstances, in clysters; and if it should happen that adults cannot swallow, the same method must be pursued; and nourishment and cordials must be thrown into the system by the same means.

Blistering plasters are very beneficial in this disease, especially when the patient's pulse and spirits are low. They may be applied to the throat, behind the ears, or upon the back part of the neck.

Dr. Percival recommends two parts of the emplastrum stomachicum or *à cymino*, one part of the emplastrum vesicatorium, and a dram and a half of powdered camphor to be mixed for this purpose. This mild plaster, he observes, sufficiently discharges the serum, and at the same time is antiseptic; and as the skin is peculiarly disposed to inflammation, it is preferable to the common blistering plasters. If it be spread and warmed, and a thin piece of muslin be laid on its surface, it will irritate less, and produce less stranguary, and may be thus safely applied even where the skin is erysipelatous.

A cataplasm of the bark and camomile flowers, boiled in vinegar, with the addition of a dram and a half, or two drams of camphor, laid across the throat, and renewed every four hours, will contribute much to relax and soften the glands of the neck, and exhale an antiseptic vapour, which will be drawn in by the mouth at every inspiration, and also absorbed from it.

In cases less urgent, flannels dipped in spirit of wine camphorated and sharp vinegar, mixed in equal parts, may be applied to the neck, instead of this cataplasm.

The volatile liniment may be applied externally to the throat, with good effect.

Fixed

Fixed air, administered by the mouth, or by way of clyster, is a very important and useful medicine in this disorder.

If the patient should be troubled with a violent looseness, the size of a nutmeg of diascordium, or the japonic confection, may be taken two or three times a day, or oftener if necessary.

If a discharge of blood from the nose should happen, the steams of warm vinegar may be received frequently up the nostrils, and the drink must be sharpened with spirits of vitriol, or tincture of roses. In case of strangury, the belly should be fomented with warm water, and emollient clysters given three or four times a-day.

When the violence of the disease is over, the body should be kept open with mild purgatives, as manna, senna, rhubarb, &c.

If great weakness, dejection of spirits, or night sweats, and other symptoms of a consumption should succeed this disease, the patient must continue the use of the Peruvian bark, with the elixir of vitriol, and take frequently a glass of generous wine. These, with a milk diet, and exercise on horseback, will probably re-establish his health and strength.

PART V.

OF COLDS, COUGHS, HOOPING COUGH, &c.

OF COLDS, COUGHS, &c.

BY a cold is generally understood, a sudden check of perspiration from an improper exposure to cold; the consequences of which, whilst confined to the general notion of cold, are the same as attend the lesser degrees of a catarrh; in its further advances, it is productive of fevers, consumptions, and other disorders both troublesome and dangerous.

A cold

A cold generally begins with a stoppage of the nose, and consequent difficulty of breathing through it; there is a dull pain in the forehead, the eyes are full and watery, and in the progress of the disease there is a great discharge of mucus from the nose: Sometimes cold shiverings are felt; at least the body is more sensible than usual to the coldness of the air; and with all this the pulse is more frequent than ordinary, especially in the evenings. These symptoms are sometimes attended with some hoarseness, a cough, and a sense of tightness in the chest.

In the cases of a moderate disease, it is commonly sufficient for the patient to avoid the cold air, limit himself to a smaller portion of diet, abstain from animal food for a few days, and to drink warm mild diluting liquors. Instead of nourishing food, he should eat light pudding, veal or chicken broth, panado, gruel, &c. His drink may consist of water-gruel, sweetened with honey; an infusion of balm or linseed, sharpened with orange or lemon-juice; a decoction of barley and liquorice with tamarinds, or any other cool, diluting acid liquor.

His supper should be very light; as small posset, sweetened with honey, and a little toasted bread in it. Those who have been accustomed to drink freely of generous liquors, may take white wine whey instead of gruel.

The patient should lie longer in bed than usual, and encourage a gentle sweat, which may be easily brought on in the morning, by drinking tea or any kind of warm diluting liquor. Many have, by this practice, carried off a cold in one day, which, if neglected, might have been fatal to the patient.

Most of the bad effects which flow from an obstructed perspiration, might probably be prevented by a moderate degree of abstinence and care when the first symptoms of a cold appear. After a disease has gathered strength by delay, all attempts to remove it is often useless. A cold when neglected, or improperly treated, frequently brings on a pleurisy, a peripneumony, or a consumption of the lungs.

“ Most

“Most of the nostrums,” says Parkinson, “advised as *cough drops*, &c. are preparations of opium, similar to the paregoric elixir of the shops; but disguised and rendered more deleterious, by the addition of aromatic and heating gums. The injury which may be occasioned by the indiscriminate employment of such medicines, in this disease, may be very considerable; as is well known to every person possessing even the smallest share of medical knowledge.” *Med. Adm.* 327.

The same author observes, that, “The frequency with which this disease occurs in this part of the world, and the slight degree of interest and alarm which is, in general, excited by the expression, *catching cold*, by which this disease is commonly described, too frequently occasion that neglect, by which the foregoing maladies are produced.”

Many have recourse to intoxication for the cure of a cold, and perhaps sometimes with success, as it may suddenly restore the perspiration; but if there is any degree of inflammation, which is frequently the case, strong liquors will increase the malady instead of removing it, and may probably convert a common cold into an inflammatory fever.

Bathing the feet and legs in warm (not hot) water tends greatly to restore the perspiration, but if it is too warm it will do harm; it should not exceed the warmth of the blood; and immediately after the operation the patient should go to bed. Bathing the feet in warm water, lying longer than usual in bed, and drinking warm water-gruel, and other weak liquors, will sooner restore the perspiration, than all the hot sudorific medicines that can be administered.

But when the symptoms do not yield to abstinence, warmth, and diluting liquors, the approach of some other disease may be reasonably apprehended, as an inflammation of the breast, an ardent fever, &c. If the pulse therefore be hard and frequent, the skin hot and dry, and the patient complains of his head or breast, bleeding will be necessary; and it will also be

proper to put a blistering plaster on the back, and to treat the patient in all respects as for a slight fever.

Persons who easily take cold, should use frequent moderate exercise, and take such medicines as increase the vigour of the circulation, and strengthen the general system: the too great irritability of their constitutions may be diminished by opium, bark, residing in dry cold places, &c. The disposition to take cold may be in a great degree lessened by gradually acquiring the habit of being exposed to sudden changes of heat and cold. It is of great importance, with regard to preventing colds, to avoid, as much as possible, all sudden extremes either of heat or cold, and to take particular care, when the body is heated, to let it cool gradually.

“Rubbing the nose externally with oil is recommended,” says Dr. Temple, “when the mucous membrane of the nose is much affected. He further says, it is a common practice with nurses to rub the child’s nose with tallow, when it has a cold in its head, as it is called, and I am informed that it generally relieves it very soon.” *Temple’s Pract. of Physic*, 149.

OF A COUGH.

A COUGH generally proceeds from a cold which has been neglected, or improperly treated. When it proves obstinate, the consequences are to be feared, as it demonstrates the weak state of the lungs, and is often followed by a consumption.

A cough which arises from internal causes, is to be carefully distinguished from one that arises from external causes. The dry and the moist cough, that is, those in which the matter is spit up, and those in which nothing is evacuated, differ also greatly, as well in regard to their symptoms, as to the persons they attack. The dry cough is always more tedious to cure than the moist, and more easily returns. The stomachic cough,

is known by the quantity and thickness of the matter that is spit up, which is always most frequent after meals, and gives a tendency towards a reaching to vomit. This moist stomachic cough differs in this manner, in all particulars, from the dry cough of the same name and origin with it.

When a cough is violent, and the patient young and strong, with a hard quick pulse, bleeding will be proper; but in weak and relaxed habits, bleeding rather prolongs the disease: when the patient spits freely, bleeding is unnecessary, and sometimes prejudicial, as it tends to lessen that discharge.

If the cough is attended with any degree of fever, and the spittle is viscid and tough, sharp pectoral medicines should be administered, as gum ammoniac, squills, &c. Two table-spoonfuls of the solution of gum ammoniac may be taken three or four times a day. Squills may be taken several ways: two ounces of the vinegar, the oxymel, or the syrup, may be mixed with two ounces of simple cinnamon water, with the addition of an ounce of common water, and an ounce of balsamic syrup. Two table-spoonfuls of this mixture may be taken two or three times a day.

A syrup made of equal quantities of honey, sugar-candy, and lemon-juice, is also a good medicine for this kind of cough. A table-spoonful of it may be taken at discretion.

But these kind of medicines are improper, when the defluxion is sharp and thin; recourse is then to be had to opiates, oils, and mucilages. A cup may be taken frequently of an infusion of wild poppy leaves and marsh-mallow roots, or the flowers of colt's-foot: or a tea-spoonful of the paregoric elixir may be put into the patient's drink twice a-day.

When a cough is occasioned by acrid humours, tickling the throat, &c. some soft pectoral lozenges should be kept almost continually in the patient's mouth, as barley-sugar, the common balsamic lozenges, Spanish juice, &c. These take off the stimulating quality of the humours, and tend to mitigate the cough,

In obstinate coughs, occasioned by a flux of humours upon the lungs, not only expectorating medicines are necessary, but issues, setons, or some other drains are to be recommended. A Burgundy-pitch plaster, applied between the shoulders, has been found wonderfully efficacious in the most obstinate coughs.

Dr. Buchan has a very high opinion of the effect of this application, as we may gather from his own words, which are these:—"About the bulk of a nutmeg of Burgundy pitch may be spread thin upon a piece of soft leather, about the size of the hand, and laid between the shoulder-blades. It may be taken off and wiped every three or four days, and ought to be renewed once a fortnight or three weeks. This is indeed a cheap and simple medicine, and consequently apt to be despised; but we will venture to affirm that the whole *materia medica* does not afford an application more efficacious in almost every kind of cough. It has not indeed always an immediate effect; but, if kept on for some time, it will succeed where most other medicines fail."

He further remarks, that, "The only inconveniency attending this plaster is the itching which it occasions; but surely this may be dispensed with, considering the advantage which the patient may expect to reap from the application; besides, when the itching becomes very uneasy, the plaster may be taken off, and the part rubbed with a dry cloth, or washed with a little warm milk and water. Some caution indeed is necessary in discontinuing the use of such a plaster; this however may be safely done, by making it smaller by degrees, and at length quitting it altogether in a warm season."

The persons most subject to the common dry cough, are young people of a florid constitution and dry habit of body; and men of the middle or more advanced ages are sometimes also afflicted with it, from suppression of the hæmorrhoidal discharges, or from omission of habitual bleedings; as are also people who are badly conformed, deformed, or crooked, and such as
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are afflicted with the evil, or have nodes of a schirrous nature in the lungs; and finally, such as have been ill treated in the Small Pox, or have had the itch, or any other violent cutaneous eruption struck in upon them.

A dry cough, in young people, is much to be feared when of long standing; for it not unfrequently degenerates into a spitting of blood, or into a consumption.

The persons most subject to a common moist cough, are those of a phlegmatic habit, and such as are apt to cool their neck and breast in autumn in damp cold air in evenings; such as have omitted their habitual bleedings, and such as have drank too freely of spirituous liquors, or taken too much of acids.

In case of a moist pectoral cough, it is proper first to give a purge, not violent, but yet moderately strong, to drive the matter from the breast; and the catarrhal matter, or defluxion, must then be prepared for evacuations. When it is simply mucous, the common catarrhal medicines are to be depended on; such as the decoction of the roots of pimpnel and iris, and the leaves of hyssop, horehound, scabious, and speedwell; with these are to be given the attenuant gums, as ammoniacum, benjamin, and sagapenum, with the warmest carminative feeds.

The commotions occasioned by humid or moist coughs are never extremely violent, nor of any extreme danger, and therefore it is not necessary to be at any great pains to allay them by opiates; but these are very successfully given in cases where the emotions are greatly too violent for the quantity of matter, or where they continue after the matter is carried off and evacuated. In this case the storax-pill is of great service.

When a cough proceeds from a foulness or debility of the stomach, oils, syrups, mucilages, and balsamic medicines of all kinds do harm. The stomach cough may be distinguished from one occasioned by a fault of the lungs by this, that in the latter the patient coughs whenever he draws in his breath freely; but in the former that does not happen.

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To cure this cough, the stomach must be cleansed and strengthened, which may be generally effected by gentle vomits and bitter purgatives. After a vomit or two, one or two table-spoonfuls of the sacred tincture may be taken twice a day for a considerable time. If more is found necessary to keep the body gently open, an addition may be made to the dose.

In coughs proceeding from a debility of the stomach, the Peruvian bark is also of essential service: It may be chewed, taken in powder, or made into a tincture with other stomachic bitters.

When a cough is only the symptom of another disease, the original disease should be removed, before an attempt is made to remove the cough. If a cough is occasioned by teething, facilitate the cutting of the teeth by keeping the body open, and scarifying the gums, and by so doing you appease the cough. And when worms occasion a cough, bitter purgatives, oily clysters, &c. remove these vermin, and with them they generally remove the cough.

In general, any cough that seizes a person in the spring, is much easier cured than one that attacks in autumn. Periodic coughs, that have been long used to return upon people at certain times, are always to be suspected of danger, if they leave them suddenly, and no natural or artificial evacuation is made in their place; for they too often bring on faults in digestion, and sometimes suffocative catarrhs and paralytic disorders. A moist habitual cough, when it suddenly changes into a dry one, is also a bad prognostic. A violent dry hypochondriac cough, that frequently remits and recurs again, and is usually worst in the night, gives great reason to suspect a schirrhosity in the liver; and the more regularly it returns at stated times, the more certain is the defect of this or some other of the viscera; so that the prognostic is very fatal and very certain from it.

The inhabitants of every climate are so liable to take cold, that the greatest caution and circumspection cannot at all times defend them from its attacks; because
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the human body cannot be constantly kept in an uniform degree of warmth, and the perspiration must consequently be liable to many changes. Such changes, when small, cannot much affect the health, but, when great, they must prove very hurtful; the patient should therefore be always upon his guard, and call in discretion to his aid upon such and similar occasions.

THE HOOPING COUGH.

THOUGH most generally known by the name of the hooping cough, this disease is also called tussis serina, the rheumatic cough, the chin cough, and convulsive cough. Dr. Butters says it is an epidemic, contagious, spasmodic disease. It somewhat resembles an intermittent fever in the periodic return of the fits; they both prevail in the same season, arise from the same cause, and are cured by the same remedies. [*See Huxham on Air and Epidemical Diseases, 76, 77.*] Further, the autumnal hooping cough and intermittents are analogous in that they renew their attacks in the returning spring, though seemingly cured long before. The hooping cough resembles the small-pox, in not usually returning, in being infectious to the predisposed, and as it must have its course.

This cough often proves fatal to children, but seldom affects adults. Whatever tends to hurt the digestion, obstruct the perspiration, or relax the solids, disposes to this disease; its cure must therefore depend upon cleansing and strengthening the stomach, bracing the solids, and promoting perspiration and the different secretions.

It is originally symptomatic; is often a symptom in the asthma. Sydenham says, that the cough is excited by vapours, which are thrown into the lungs by the blood. Dr. Butters says, its seat is in the intestines; that neither the stomach nor the lungs are concerned in it; that the primary affection is a morbid irritability of the mucous glands. Some assert, that the disorder
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is a convulsive one; and others, with greater seeming probability, that it is a convulsion in the diaphragm, excited by sharp humours in the *primæ viæ*. Walchmeid says, it proceeds from a disorder of the stomach. Dolæus says, it is caused by tough viscid matter lodged in the coats of the stomach; and Hoffman attributes it to thin and acrid juices in the ducts, or channels, destined to respiration.

SYMPTOMS. This disorder begins with a hoarseness, but usually with a dry cough, which continues about two weeks, and then becomes convulsive, and some phlegm is discharged; its increasing state takes up about four weeks more, and in six weeks after it generally goes off, though sometimes it continues eighteen or twenty weeks: sometimes the phlegm is ropy, at others it is mixed with sharp serum, but always is thrown up with difficulty: at the height, the phlegm is more concocted, and as the cough declines, the expectorated matter is whitish.

It often commences with the symptoms of a common catarrhal cough, or cold, and exists some little time before the characteristic hoop is heard.

After recovery a relapse may easily happen from taking cold; but these relapses are slight and short. Some have only the antecedent short dry cough; these get well in two or three weeks, but if phlegm begins to appear, the patient is not so soon quit of this disorder.

When the cough is in any degree violent, the blood is so obstructed in the face as to occasion blackness there, and, according as the vessels of the nose are more or less able to resist, so an hæmorrhage from thence is more or less copious and frequent.

The hooping cough is most fatal to children under two years of age. Older children usually swallow the phlegm, and then puke it. After three years of age it seldom proves fatal.

REGIMEN. The diet must be light, and of easy digestion; good bread made into pap or pudding, chicken broth, with other light spoon-meats, are proper;

per: The drink may be hyssop, or penny-royal tea, sweetened with honey or sugar-candy, or small wine whey.

One of the most effectual remedies for a hooping cough is said to be a change of air; and that the malady has often been removed by this, even when the change has been from a purer to a less wholesome air.

The body ought to be kept gently open: for this purpose, the best medicines are rhubarb and its preparations, as the syrup, tincture, &c. A tea-spoonful or two of these may be given to an infant twice or three times a-day. With those further advanced, the dose must be proportionally increased and repeated till it has the desired effect. Those who cannot take the bitter tincture, may have an infusion of senna and prunes, sweetened with manna, coarse sugar, or honey; or a few grains of rhubarb mixed with a tea-spoonful or two of syrup, or currant-jelly, so as to disguise the taste. Children seldom reject these medicines, which are tendered to them as composed of syrups and jellies, articles of which they in general are extremely fond.

When a fit of coughing makes the patient vomit, it is reckoned a favourable symptom. This cleanses the stomach, and greatly relieves the cough. It is therefore proper that this discharge should be promoted by small doses of ipecacuanha. The body ought also to be kept gently open.

CURE. As opinions vary with respect to the seat, &c. of this complaint, so the methods of relief that are proposed are also various; but, in general, gentle antimonial emetics, administered about half an hour before the return of each fit, when the periods can be guessed at, are the principal assistants that have hitherto been observed.

Particular symptoms are relieved by bleeding, blisters, gentle laxatives, &c. In the beginning, if the face is very black during the fit, or if blood is discharged with the cough, bleed: if the breathing is difficult, the *lac.*

ammon. will be proper. To moderate the violence of the cough, mix opiates with purgatives, and give them in such doses as whilst the violence of the cough is moderated, the bowels may also be kept solutive.

When the disorder is violent, and the patient seems in danger of being suffocated by the cough, he should be bled, especially if there be a fever with a hard full pulse. But the chief intention of bleeding being to prevent an inflammation of the lungs, and to render it more safe to give vomits, it will seldom be necessary to repeat the operation; yet if symptoms of an inflammation of the lungs are apparent, a second or a third bleeding may perhaps be requisite.

The garlic ointment is an excellent medicine, both in the hooping cough, and in most other coughs of an obstinate nature. It is made by beating garlic in a mortar, with an equal quantity of hog's lard. With this the soles of the feet should be rubbed twice or three times a day; but the best method is to spread it upon a rag, and apply it as a plaster. It should be renewed every night and morning, the garlic soon losing its virtue.

All oily, pectoral, and balsamic medicines, though commonly believed to possess wonderful virtues for the cure of the hooping cough, only load the stomach, hurt the digestion, and aggravate the disorder.

Wood-lice are much recommended for the cure of this disorder: those who are inclined to try them, may infuse two ounces of them bruised in a pint of small white wine for one night; afterwards the liquor may be strained through a cloth, and a table-spoonful of it given to the patient three or four times a day.

Opiates are sometimes necessary to allay the violence of the cough: a little of the syrup of poppies, or five or six drops of laudanum, to be regulated by the age of the patient, may be given in a cup of hyssop, or penny-royal tea, and repeated as there may be occasion.

The feet should be bathed in warm water once in two or three days; and a plaster of Burgundy pitch should

should be kept constantly between the shoulders. But, should the disease prove very violent, a blistering plaster, instead of the pitch plaster, should be applied, and the part kept open for some time with issue ointment.

When the disease is prolonged, and the patient is free from a fever, the bark and other bitters are the most proper medicines. The bark may be given in substance, or in a decoction or infusion: ten, fifteen, or twenty grains, may be given three or four times a-day, according to the age of the patient. Half a dram, or two scruples, will be proper for an adult. Some administer castor with the bark; to a child of the age of six or seven years, may be given eight grains of castor, with fifteen grains of powdered bark, for a dose. This may be mixed with two or three ounces of any simple distilled water, and a little syrup, and taken three or four times a-day.

PART VI.

INFLAMMATION OF THE STOMACH AND OTHER VISCERA; COLIC, INFLAMMATION OF THE LIVER, BLADDER, &c.

INFLAMMATION OF THE STOMACH AND OTHER VISCERA.

ALL inflammations of the bowels are extremely dangerous, and unless the most powerful means of relief be immediately employed, prove fatal.

CAUSES. An inflammation of the stomach may be occasioned by drinking cold liquor while the body is warm, by obstructed perspiration, or the sudden striking in of any eruption. By vehement passion: the acrimony of the bile, or acrid and stimulating substances taken into the stomach, may likewise produce it; as strong vomits or purges, corrosive poisons, &c. The gout, when repelled from the extremities, by cold, or improper applications, often occasions an inflammation of the sto-

mach. Hard, heavy, or indigestible substances taken into the stomach, as bones, the stones of fruit, &c. may also have the same effect.

One of the most frequent causes of this disease, is the suddenly passing from a cold atmosphere into warm rooms: the learned Dr. Crichton, speaking of the evils arising from transitions from cold to heat, says, "It may be remarked, that almost all the cases of inflammation of the lungs or stomach, to which the common people of London are subject, arise from similar causes. Either they have been riding in carts, or on the tops of coaches, in very cold weather, and afterwards have come into a warm room, probably an alehouse, or else they have been working for hours in drains, or in similar cold situations. While they remain in the cold, no symptoms of the disorder occur. It almost always commences when they get home." *Origin of Mental Derangement*, Vol. i. p. 29.

SYMPTOMS. The symptoms are, a burning heat and tension in the region of the stomach, great restlessness, hiccup, and anxiety; a small, quick, and hard pulse; vomiting, or nausea and sickness, especially after taking any thing into the stomach, which circumstance also increases the pain; extreme thirst; coldness of the extremities; difficulty of breathing, and swallowing; a pain in sneezing; cold clammy sweats; and sometimes convulsions and fainting fits; the stomach is swelled, and appears hard to the touch. When a wound in the stomach is the cause, there is frequently little or no pain, although all the other symptoms take place, and the patient is cut off. It affects chiefly those of a plethoric habit, and hot bilious constitution.

REGIMEN. From the weakness of the patient, cordials may seem to be indicated, but they are extremely injurious and dangerous in this case. All acrimonious, heating, and irritating food and drink are carefully to be avoided. The aliment must be light, thin, cool, and easy of digestion; it must be given in small quantities, not quite cold, nor too hot.

CURE.

CURE. Bleeding is almost the only dependance in this disease, and it must be freely used, notwithstanding the lowness of the pulse, and repeated till the pulse rises. The smallness of the pulse must not deter us from this necessary measure, for after bleeding it generally becomes fuller: then apply a large blister on the region of the stomach, particularly over the part aggrieved.

Much benefit may be expected from frequent fomentations with luke-warm water, or a decoction of emollient vegetables: flannel cloths, dipped therein, should be applied to the region of the stomach, and removed as they grow cool. They must not be applied too hot, nor be suffered to continue till they become quite cold.

The feet and legs should also be frequently bathed in luke-warm water, and warm bricks or poultices may be applied to the soles of the feet.

The irritability of the stomach in this disease will admit of no medicines being given by the mouth; and if any can be supposed necessary, they must be exhibited in clysters. Clysters answer the purpose of an internal fomentation, while they keep the body open, and at the same time nourish the patient, who is often, in this disease, unable to retain any food upon his stomach. These must not be neglected, as the patient's life may depend upon them. The clysters may be made of warm water, or thin water-gruel; and if the patient is costive, a little sweet oil, honey, or manna, may be added.

If the symptoms, without being very violent, do not abate after the fourth or fifth day, and if then the pain becomes less, if the pulse is less frequent, and if the patient at the same time has frequent shiverings, suppuration is to be apprehended; always highly dangerous, and often fatal. If after violent pain, and other violent symptoms, the pain suddenly ceases, while the pulse increases in frequency, sinks, and becomes irregular, with increased debility, a gangrene may be feared, which is fatal.

Till evacuations have been made, and the violence of the inflammation shall have abated, opiates are supposed to be hurtful; but after those circumstances shall have

taken place, they may be given in clysters, and frequently with advantage. Topical or local bleeding by leeches, and cupping should also be ordered in the beginning.

A tendency to gangrene in this disease is to be obviated only by the means above-mentioned; and when it does actually happen, it admits of no remedy. A tendency to suppuration is to be obviated by the same means employed early in the disease. After a certain period, it cannot be prevented by any means whatever; and, when actually begun, must be left to nature; the only thing that can be done by art is to avoid all irritation.

INFLAMMATION OF THE INTESTINES.

ACCORDING to the different parts of the intestines in which the inflammation is seated, different names have been given, as the iliac passion, enteritis, &c. but in all the treatment is nearly the same.

The inflammation of the intestines will be distinguished from spasmodic, flatulent, and other species of the colic, by the pain being constant, by the great heat, by the state of the pulse, and other general symptoms of inflammation. It may also be the sequel of other diseases, as costiveness, dysentery, worms, &c.

CAUSES. Inflammations of the intestines may arise from the same causes as those of the stomach; though commonly the former will more readily occur from cold applied to the lower extremities. To which may be added costiveness, worms, eating unripe fruits, or great quantities of nuts, drinking hard windy liquors, as stale bottled ale or beer, cyder, sour wine, &c.

SYMPTOMS. This disease shews itself by a fixed pain in the abdomen, or lower belly, attended with fever, vomiting, and costiveness. The pain is often felt in different parts of the abdomen, but more frequently spread over the whole, and is particularly violent about the navel.

While

While the pain shifts, and the vomiting only returns at certain intervals, and while the clysters pass downwards, there is reason to hope; but when the clysters and *faeces* are vomited, and the patient is extremely weak, with a low fluttering pulse, a pale countenance, and a very offensive breath, it is too probable that the consequences will prove fatal. Clammy sweats, black foetid stools, a small intermitting pulse, and a total cessation of pain, are indications of a mortification already begun, and of approaching death.

The most dangerous error, with respect to the treatment of this disease, is when it is mistaken for colicky pains. The remedies generally resorted to on these occasions, are aromatic, spirituous, and heating liquors; which must necessarily accelerate the termination of this disease in mortification.

REGIMEN. The patient must be kept quiet, avoiding cold, and violent agitations of the mind: his food should be very light, and in small quantities; his drink weak and diluting, as whey, barley-water, &c. In other respects the patient is referred to the regimen pointed out in this work, under *Inflammation of the Stomach, and other Viscera*.

CURE. The cure of the inflammation of the intestines is to be attempted by the same general means as were employed in the cure of the inflammation in the stomach; but we can, in this case, introduce medicines more readily by the mouth. Cooling acidulated liquids will be proper; laxatives, cooling laxative clysters should be frequently injected.

As a vomiting frequently attends this disease, care must be taken not to excite that vomiting by the quantity or quality of any thing thrown into the stomach. Opiates are to be given, with the restrictions mentioned in inflammations of the stomach. Sometimes the sudden application of cold water to the abdomen has a good effect.

A blistering-plaister is to be applied immediately over the part where the most violent pain is: Not only the pain of the bowels is thus removed, but even clysters
and

and purgative medicines, which before had no effect, will operate when the blisters begin to rise.

Fomentations and laxative clysters must not be omitted: the feet and legs of the patient must be frequently bathed in warm water, and cloths, dipped therein, applied to his belly. Bladders, filled with warm water, may also be applied to the region of the navel, and warm bricks, or bottles full of warm water, to the soles of the feet. The clysters may be composed of barley-water, or thin water-gruel with salt, and softened with sweet oil or fresh butter. These should be administered every two or three hours, or oftener, till the patient ceases to be costive.

The following answers the purpose of opening the body very well: dissolve two ounces of bitter purging salt in a pint of warm water, or thin gruel, and let a tea-cup of it be taken every half hour till it operates; fifteen, twenty, or twenty-five drops of laudanum may be taken, at the same time, in a glass of peppermint, or simple cinnamon water, to appease the irritation, and prevent the vomiting, &c.

In general, strong purgatives, by irritating the bowels, often increase their contraction, and frustrate their own intention; therefore, as in the medicine last mentioned, it was judged necessary to join the purgatives with opiates, which by allaying the pain, and relaxing the spasmodic contractions of the guts, greatly assist the operation of purgatives in this case.

In very desperate cases, quicksilver is frequently given; several ounces, or even a pound, may be given, but that quantity must not be exceeded. When a mortification of the guts is apprehended, this medicine ought not to be tried; as it could not effect a cure, and would only hasten the death of the patient: but when the obstruction is occasioned by any cause that force can remove, quicksilver is the best medicine that can be administered.

To avoid this tormenting and dangerous disease, every individual ought to be extremely cautious of going too long without a stool; of eating too freely of
unripe

unripe fruits ; drinking stale windy liquors ; living too much on baked fruits ; taking cold by wet clothes ; or suffering their feet to be wet.

Dr. Fordyce says, that, in this disease, the circulation is to be brought to the surface of the body by the warm bath, or fomentations applied to the belly : but great care is to be taken, lest cold from the air or moisture in coming out of the bath, or changing the fomentations, should do more mischief than the remedy does good : these are also useful when the *anus* is much contracted, so that clysters cannot be given.

If it be left to itself, this disease kills sometimes in ten or twelve hours, and almost always before the end of the third day ; so that there is seldom any suppuration. But if the intestines should suppurate, the pain diminishes, and is converted rather into a sense of distention ; irregular cold fits, with the other symptoms of internal suppuration arise ; and the contraction of the muscular fibres of the intestines, the great frequency of the pulse, and other symptoms go off.

THE COLIC.

WRITERS enumerate eight species of this disease ; but as they all depend upon the same proximate cause, they are principally to be treated on the same general principles. In many particulars it greatly resembles the two preceding diseases.

The colic is chiefly known by a violent pain diffused over the whole abdomen, with a sensation of twisting, wringing, burning, or boring about the navel, which, with its integuments, or membranes, is frequently drawn inwards, and contracted into several separate portions, and is attended with obstinate costiveness ; and frequent bilious vomitings : but though the belly is generally very costive, there is sometimes a violent evacuation of bilious matter upwards and downwards.

From the different causes and circumstances of this disorder it is differently denominated. When the pain

is accompanied with a vomiting of bile, or with obstinate costiveness, it is called a *bilious colic*. The bilious colic is attended with very acute pains about the region of the navel; the patient is generally very thirsty and costive: he vomits a hot, bitter, yellow bile, which being discharged, seems to afford momentary relief, but the same violent pain almost immediately returns. As the disease advances the disposition to vomit sometimes greatly increases, so as to become almost continual. When the vomiting in this colic becomes very difficult to restrain, the patient may drink a decoction of toasted bread, or an infusion of garden mint in boiling water. If these should not succeed, the saline draught, with a few drops of laudanum in it, may be given and repeated according to the urgency of the symptoms. Venice treacle may be spread in the form of a cataplasm, and applied to the pit of the stomach. Clysters, with Venice treacle, or laudanum in them, may also be frequently administered.

Persons liable to frequent returns of the *bilious colic*, should eat sparingly of flesh, and live chiefly on a light vegetable diet. They should also take frequently a dose of cream of tartar with tamarinds, or any other cool acid purge.

The *flatulent* or *windy-colic*, will generally be distinguished by the pain not being fixed to one particular place, but moving about the intestines, and especially along the colon; from its affecting the stomach, and from the relief that takes place from the evacuation or change of situation of the contained air, and from its being relieved by pressure.

The flatulent colic is generally occasioned by an immoderate use of unripe fruits, meats of hard digestion, windy vegetables, fermenting liquors, &c. Obstructed perspiration may also produce it. Delicate people are most frequently attacked with this kind of colic.

When this disorder is occasioned by windy liquor, fruit, acid herbs, &c. a dram of brandy, gin, or any good spirits is an excellent medicine on the first appearance.

ance of the symptoms. The patient should also sit with his feet on a warm hearth-stone, or apply warm bricks to them. Warm cloths should also be applied to his stomach and bowels.

But it is only in this kind of colic, that ardent spirits, spiceries, or any thing of a hot nature may be ventured on; and in this only at the beginning, before inflammatory symptoms appear: Afterwards all hot things should be rejected as poison, and the patient should then be treated in the same manner as for the inflammation of the intestines.

It is observed, however, by Dr. Alexander Monro, (in Medical and Literary Essays, vol. 1,) that, "The common practice of taking spirituous liquors, or the warm carminatives, when people feel colic pains, is often *unlucky*, and public warning should be given against it; for though relief is found from such things in the windy or spasmodic colic, which is not a deadly disease; yet they hurry on the inflammatory diseases so fast, that they soon prove mortal."

What is called the *painter's colic*, the *Devonshire colic*, the *colic of Poitou*, or the *nervous colic*, is now well known, from the enquiries of the learned Sir George Baker, and others, to proceed from lead received into the body.

This colic prevails among miners, smelters of lead, plumbers, manufacturers of white-lead, &c. It is frequent in the cyder counties, and is supposed by some to be occasioned by the leaden vessels used in preparing that liquor.

Dr. Temple gives the following account of the colic thus denominated—"It will be known (says he) by enquiring into the preceding circumstances, whether the patient, from his employment, has been exposed to the action of lead, as painters, plumbers, miners, and potters are; if he has largely used any saturnine or leaden applications, or drank cyder, or other liquors that may be impregnated with it. The pain does not come on with such violence at the first, as in the other species of colic. It is felt deep seated

“ about the navel, and strikes through the back; the
 “ pain remits, and gradually increases to the greatest
 “ degree of violence, and at length becomes continual;
 “ it increases after eating. The navel is drawn strongly
 “ inwards, and so are the integuments of the abdomen
 “ and intestines towards the spine, so as to prevent
 “ the injection of clysters; and this contraction so ge-
 “ nerally takes place, that it has been esteemed a pa-
 “ thognomonic of the disease. The pulse is contracted,
 “ small, and hard. Stoll says, that the pulse affords the
 “ diagnosis of this disease; that it is hard, tense, and
 “ small in a degree that takes place in no other disease;
 “ it vibrates like wire.”

“ This disease, (continues he) is certainly and effec-
 “ tually cured by mercury, which is to be introduced
 “ into the system, so as to bring on an affection of the
 “ mouth soon; but the violence of the symptoms must,
 “ in the mean time, be alleviated. Opium in large
 “ doses must be given in the first place, and then some
 “ cathartic; the ol. ricini, or magnes. vitriol. with oil
 “ of almonds. The warm bath must be had recourse
 “ to, and the abdomen fomented or blistered. While
 “ this is doing, half a dram or a dram of mercurial
 “ ointment must be rubbed in night and morning;
 “ when the mouth is affected, it will be proper to desist
 “ for a time, for it is not necessary to bring on a
 “ salivation; a slight affection of the mouth kept up
 “ for some time will certainly remove it; that is, for a
 “ week or a fortnight after the symptoms have disap-
 “ peared. The continuance of the remedy after the
 “ symptoms have disappeared is necessary, as the dis-
 “ ease is apt to return if it be left off too soon—For
 “ removing the paralytic affections, which this and the
 “ ileus leave, the Bath waters used externally and in-
 “ ternally are the most efficacious remedy.” *Temple's*
Prac. of Physic, 201.

To avoid this colic, it is necessary to avoid all
 four fruits, acid and austere liquors. Workers in lead,
 &c. should never go to their business fasting, and their
 food should be oily and fat. They should not take
 spirits

spirits alone, but they may take a glass composed of salad oil, and brandy, or rum, every morning. Liquid food is to be preferred, as fat broths, &c. but the patient must not live low.

The *hysteric colic* greatly resembles the bilious. It is attended with acute pains about the region of the stomach, vomiting, &c. but what the patient brings up in this case is usually of a greenish colour. He experiences a great sinking of the spirits, dejection of mind, and difficulty of breathing; which are the characteristic symptoms of this disorder. Sometimes the jaundice accompanies it, but usually goes off voluntarily in the course of a few days.

In this colic, bleeding, purging, vomiting, and all other evacuations, do mischief. Whatever has a tendency to weaken the patient, or sink his spirits, must be avoided: but if the vomiting should prove violent, warm water, or weak posset, may be drank to cleanse the stomach. The patient may then take fifteen, twenty, or twenty-five drops of liquid laudanum in a glass of cinnamon water; and repeat the same every ten or twelve hours till the symptoms abate.

Such are the principal kinds of colics, and to mention more might rather perplex than inform the reader. It is, however, necessary to observe, that, in colics of every kind, the following general rules should be attended to, *viz.* To bathe the feet and legs in warm water; to apply bladders filled with warm water, or cloths dipped in it, to the stomach and bowels; to prevail on the patient to drink plentifully of diluting mucilaginous liquors; and to give him an emollient clyster every two or three hours.

A few more general observations on colics, may perhaps be acceptable and useful to our readers. The colic is never to be reckoned void of danger, as it may unexpectedly terminate in an inflammation and gangrene of the intestines. Those species of it which are attended with purging, must be considered as much less dangerous than those in which the vomiting is very violent. The iliac passion, or that attended with the
3
vomiting

vomiting of feces, is always to be accounted highly dangerous; but if the passage through the intestines is free, even though their peristaltic motion should be inverted, and clysters evacuated by the mouth, there is much more hope of a cure, than when the belly is obstinately costive, and there is some fixed obstruction, which seems to bid defiance to all remedies.

As the chief danger in colics arises from an inflammation and consequent mortification of the intestines, we should begin with bleeding, and the necessity of its repetition must be determined by the state of the pulse. Recourse must also be had to emollient injections, warm bathing, and cooling medicines administered inwardly. Dr. Porter strongly recommends the cold bath in those colics attended with violent evacuations of bile. He supposes it to do service by relaxing the constriction of the intestines.

In the mean time, opiates may be given to ease the pain, while every method is tried, by cathartics and clysters of various kinds, to procure a stool. In obstinate cases, where stimulating cathartics have proved ineffectual, the milder kinds, such as manna, senna, &c. will succeed; but where every thing of this kind fails, recourse must be had to some of the more extraordinary methods.

Some have recommended the swallowing of leaden bullets, on a supposition that, by their weight, they would force through the obstruction into the gut; but these seem more likely to create than remove an obstruction. It is impossible they can act by their gravity, because the intestines do not lie in a straight line from the pylorus to the anus; and though this were actually the case, we cannot suppose that the weight of a leaden bullet could prove very efficacious in removing either a spasmodic constriction, or an obstruction from any other cause.

But when we consider, not only that the intestines consist of a great multitude of solids, but that their peristaltic motion (by which only the contents are forced through

through them) is inverted, the futility of this remedy must be evident. It might rather be supposed to aggravate the disease.

Some recommend quicksilver, and others exclaim against swallowing large quantities of that mineral, even if it should prove efficacious in relieving the patient for the present.

Another method hath been proposed, in the Medical Essays, for relieving miserable patients in this disorder, which at least can be attended with no bad consequences, and in many cases has been known to do service. The patient is to be taken out of bed, and made to walk about the cold floor of a damp apartment: At the same time, porringers of cold water are to be dashed on his feet, legs, and thighs; and this must be continued for an hour or longer, if a stool is not procured before that time, though this will generally be the case much sooner.

This exercise does not impair the patient's strength, but rather adds to it; and some very remarkable instances are adduced in the sixth volume of the Medical Essays, where this proved effectual after all other medicines had failed: In one person the disease had come on with an habitual costiveness, and he had been for a week tormented with the most violent pain and vomiting, which could not be stopped either by anodynes or any other medicines; the sharpest clysters being returned unaltered, and all kinds of purgatives thrown up soon after they were swallowed; but, by the above-mentioned method, a stool was procured in thirty-five minutes, and the patient recovered: In others, the costiveness had continued for a much longer time.

Other remedies are, the blowing air into the intestines, by means of a bellows, and the injecting clysters of the smoke of tobacco: but neither of these seem very capable of removing the disease. They can affect only the part below the obstruction; while, to cure the disease, it is necessary that the obstructed parts themselves should be reached by the medicine, and
therefore

therefore we have not many well-attested instances of their success. The cold water gives a general and very considerable shock to the system, checks the perspiration, and thus drives the humours inward upon the intestines, by which they receive a much more effectual stimulus than can be supposed to arise from any kind of clyster. But when all methods have failed, the only chance the patient can have for life is by a manual operation.

In those colics which are attended with faintings, &c. from the beginning, and which generally attack hysteric women, and other debilitated persons, all kinds of evacuations are pernicious; and the cure is to be attempted by anodynes and cordials, which will seldom fail of success.

What is called the ileus, or iliac passion, is only to be considered as a very high degree of colic.

Colics which proceed from excess and indigestion, generally cure themselves, by occasioning vomiting or purging. These discharges must not be stopped, but promoted by drinking plentifully of warm water, or weak posset. When their violence is over, the patient may take a dose of rhubarb, or any other gentle purge, to carry off the dregs of the debauch.

The palsy, which remains after the removal of the colic, is best relieved (as before observed) by the use of Bath-water; but as the circumstances of many do not admit of this method, the whole length of the spine may be rubbed with Barbadoes tar, dissolved in rum; and such other antiparalytics may be used, as the constitution of the patient, and other circumstances may admit.

THE INFLAMMATION OF THE LIVER.

AN inflammation may be in different parts of the liver, as in the membranes only, or in its substance; in either the concave or convex side thereof. Inflammation in the hepatic arteries is said to cause some symptoms not unlike the hydrophobia.

It

It has been asserted, by very great authorities, that the liver is not so subject to inflammation as most of the other viscera; but when an inflammation does happen, it is removed with great difficulty, and often ends in a suppuration or schirrus.

“But dissections shew,” says Parkinson, “that this malady occurs more frequently than has been supposed, schirrous hardness, suppuration, &c. being often discovered in the liver after death, when inflammation has not been suspected.” *Med. Adm.*

Winslow says, that the seat of inflammations in the liver, is in the ramifications of the vena portæ, or the hepatic artery; but Dr. Heberden gives it as his opinion, that the inflammation is first in some of those parts to which the liver is contiguous, and so is communicated to it from them.

CAUSES. The causes are all those producing inflammation; schirrous tumours in the liver; injuries from external violence; biliary concretions in the gall bladder or biliary ducts; some hot climates, as certain parts of the East Indies; obstruction of the hepatic ducts; any thing that suddenly cools the liver after it has been much heated; drinking largely of wines and spirituous liquors; eating hot spicy aliment; violent exercise, exposure of the heated body to the cold air, &c.

Those who have devoted themselves to the destructive habit of drinking to excess, are particularly liable to diseases of the liver. Tubercles, schirrous hardness, and chronic inflammations, are the changes which, in general, are produced in this organ, by this pernicious practice.

SYMPTOMS. The inflammation of the liver is thought to be of two kinds, the acute and chronic: but the latter very often does not discover itself except by an abscess found in the liver after death, and which is supposed to have been occasioned by some degree of inflammation; for this reason the chronic inflammation cannot be described, and we shall only here treat of the acute.

The acute inflammation of the liver is attended with a considerable fever; a frequent, strong, and hard pulse; high-coloured urine; an acute pain in the right hypochondrium, increased by pressing upon the part. The pain is very often in such a part of the side as to make it appear like a pleurisy; and frequently, like that, is increased on drawing breath.

This disease is also generally attended with a cough, which is commonly dry, but sometimes moist. The pain is frequently extended to the clavicle, and to the top of the shoulder, and is attended sometimes with hiccup, and sometimes with vomiting. Some have added jaundice, or a yellowness in the eyes, to the symptoms of this disease; but experience shews that it has often occurred without any such symptom.

The symptoms vary with the part of the liver inflamed; if it is the convex, or superior surface, the pain is generally more pungent; there is more hiccup, and cough; if the concave, or inferior, the pain is less, but the sickness, anxiety, and thirst, are greater.

This disease may be distinguished from the pleurisy, by the pain being less violent, and in general by its seat; by the difficulty and pain that always attends lying on the left side; by the pulse being less hard, and the cough less considerable; and by the bilious vomiting; and in some cases by the colour of the skin. It may be distinguished from the hysteric and hypochondriac disorders by the degree of fever with which it is always attended.

The danger will be proportionable to the tendency to gangrene or suppuration; the symptoms of which will be known from what has been said of the signs of these terminations in the other inflammations of the viscera.

REGIMEN. The same regimen is to be observed in this as in other inflammatory disorders.

CURE. For the cure of the inflammation of the liver, we must have recourse to the general means of removing other inflammatory disorders. Bleeding, both general and topical, may be used, according to the
urgency

urgency of the symptoms. The body must be kept gently open, but all violent purgatives are to be avoided. A decoction of tamarinds, with a little honey or manna, may be used. The side affected must be fomented, mild laxative clysters should be frequently administered, and if the pain should continue violent, a blister-plaster may be applied to the part affected.

The body must be kept cool by refrigerant, or diluting liquors, and cooling medicines. If suppuration comes on, and points outwards, it must be forwarded by poultices and fomentations.

Medicines which promote the secretion of urine are very proper: half a dram of purified nitre, or a tea-spoonful of the sweet spirits of nitre, may be taken in a cup of the patient's usual drink three or four times a-day.

An inclination to sweat should be promoted, but not by warm sudorifics; plenty of diluting liquors, blood-warm, should be drank for that purpose. If the stools should be loose, and even streaked with blood, they must not be stopped, unless they are so frequent as to weaken the patient: loose stools frequently prove critical, and carry off the disease.

When the inflammation is on the convex parts, an adhesion is frequently formed between the liver and peritonæum lining the common integuments of the abdomen; and in case of suppuration the matter points outwards, and is thence discharged, the patient recovers: if there be an adhesion to the diaphragm, or midriff, the matter, in case of suppuration, may pass into the cavity of the thorax, or into the lungs, and thence be thrown up by coughing: if adhesions are formed on the concave surface, it may be discharged into the stomach and intestines, and will be evacuated by stools or vomiting: if a suppuration takes place on its surface without any adhesions, it must be discharged into the abdomen.

A bleeding from the right nostril, or hæmorrhoidal veins, or a bilious diarrhæa, sometimes terminates the disease.

If the disease should end in a schirrus, the patient must be careful not to aggravate the disease. He must indulge himself but little, if at all, in flesh, strong liquors, or any high-seasoned or salted provisions; his principal food should be mild vegetables; and his drink should be whey, barley-water, or butter-milk.

Those who have once suffered from this disease should be cautious of exposing themselves to cold moist air; especially when heated; their bowels should be kept regular; their diet should be easy of digestion, and void of acrimony: Pickles, all kinds of spices, and spirituous liquors being carefully avoided.

NEPHRITIS, OR INFLAMMATION OF THE KIDNEYS.

THIS disorder is not common, as a determination of fluids to the kidneys occasions an increased secretion, sometimes mixed with blood, which prevents the inflammation.

CAUSES. It arises from the common causes of internal inflammations, or from external injury. The general causes are, whatever hinders the extremities of the arteries from transmitting their fluid, as a wound, contusion, abscess, a tumour, a long-continued defluxion, small stones or gravel lodging within the kidneys; strong diuretic medicines, as spirits of turpentine; tincture of cantharides, &c. violent, or long-continued exercise on horseback, or in carriages in rough roads; strains of the muscles of the back incumbent on the kidneys. It may also proceed from laying too soft, or too much on the back.

SYMPTOMS. Dr. Fordyce thus describes them, "The inflammation begins with a pain in the region of the kidney, (*i. e.* in the back, near the articulation of the short ribs, higher up on the left side than on the right) often shooting down by the ureter to the bladder, and by the spermatic chord to the testicle. The
" urine

"urine is pale, its evacuation frequent, and in small quantities at a time, performed with difficulty, and with a sense of heat and pain: there is sometimes an external redness. The leg of the side affected is seized with stupor; [Dr. Temple says, *with numbness*] and the pain is increased upon standing, walking, coughing, lying on the opposite side, or in any other case where the kidney is moved, or the surrounding parts extended. The pulse is hard and frequent, and as the pain increases, often becomes small, quick, and sometimes intermittent, with sickness, vomiting, fainting, delirium, convulsions, &c. as in the inflammation of the intestines, although not in so great a degree, or arising so soon in the disease."

Some physicians do not entirely agree with Dr. Fordyce, in the description of this disease: Dr. Cullen says, "The urine is most commonly of a deep red colour, and is voided frequently, and in a small quantity at a time: in more violent cases, the water is commonly colourless." Dr. Temple, in his *Practice of Physic*, has these words—"There is a frequent desire of making water, which comes away in small quantities, most frequently of a deep red colour; but in violent cases it is colourless." Dr. Buchan does not differ very materially from the gentleman last named. "The urine (says he) is at first clear, and afterwards of a reddish colour; but in the worst kind of the disease it generally continues pale, is passed with difficulty, and commonly in small quantities at a time."

This disease is also attended with frequent vomiting, and often with costiveness and colic pains. It may, however, be distinguished from the colic, by the pain being seated farther back, and by the difficulty of passing urine, with which it is constantly attended. A retraction, or drawing up of the testicle, is frequently among the symptoms of this disorder.

REGIMEN. All heating and stimulating food must be avoided; the aliment must be thin and light; thin
emollient

emollient liquors should be drank plentifully. The patient, notwithstanding the vomiting, must frequently sip small quantities of diluting liquors. Nothing is so effectual to abate the inflammation, and expel the obstructing cause, as copious dilution.

CURE. Bleeding is generally necessary, especially at the beginning; ten or twelve ounces may be taken from the arm, and if the pain and inflammation continue, the operation may be repeated in twenty-four hours. Leaches applied to the hæmorrhoidal veins will also occasion a discharge from them, and greatly relieve the patient.

Cloths dipped in warm water, or bladders filled with warm water, should be applied near the part affected, and renewed as they grow cool.

Dr. Buchan says, "If the bladders be filled with a decoction of mallows and camomile-flowers, to which a little saffron is added, and mixed with about a third part of new milk, it will be still more beneficial."

But this doctrine is opposed by the author of *Medical Admonitions*; who declares the doctor's opinion to be erroneous, "Since none of the medicinal properties of these ingredients can have any effect, through the bladder. Every purpose will therefore be fully answered, by the bladder being filled with hot water alone."

Frequent emollient laxative clysters should be administered; demulcent, or softening liquors freely used, and lenient opening medicines given.

"Blisters have been forbid in this case, from an apprehension of bad effects from the stimulating qualities of the cantharides. But from some experiments of Dr. Home, and others (and I can add my own experience, says Dr. Temple) it appears that sprinkling the surface of the blisters with camphor will prevent any irritation of the kidneys; and I have great reason to think that they may be applied to the regions of the kidneys here with great advantage and safety."

Decoctions

Decoctions of parsley roots, infusions of linseed, or the Arabic emulsion, with a double quantity of the gum, are convenient as common drink; and to prevent their palling the appetite, a little lemon-juice and sugar may be added to render them grateful.

If pains are excessive, give opiates to moderate them; and if vomiting is troublesome, give warm water sweetened with honey, and let the patient drink small quantities frequently.

When the disease continues beyond the seventh or eighth day, and the patient complains of a stupor and heaviness of the part, has frequent returns of chillness, shivering, &c. it may reasonably be suspected that matter is forming in the kidney, and that an abscess will ensue.

In case of a suppuration, the treatment is nearly the same as in a suppuration of the liver. After the abscess is burst, the patient should drink freely of a decoction of marshmallow-roots, or such like liquors, and take the bark freely. In this case the bark is preferable to the usual method of administering balsamics.

When matter in the urine shews that an ulcer is formed in the kidney, the patient must reject all acrid, sour, and salted provisions, and live principally upon mild mucilaginous herbs and fruits, with the broth of young animals, made with barley and common pot-herbs, &c. His drink may be whey and butter-milk; the latter of which is said to be a specific remedy in ulcers of the kidneys; but it must be used for a considerable time before any salutary effects can be expected from it. The same may be said of Chalybeate waters, which are also, by some, strongly recommended in this case.

If a gangrene takes place, it is known by the violence of the cause of the symptoms, the want of relief by remedies, and the sudden remission of the pain without apparent cause, cold sweats, a weak intermittent pulse, hiccups, either no discharge of urine, or such as is livid, black, full of hairs, foetid, and foul,
with

with a sudden and considerable loss of strength. In those cases no cure can be expected.

Those who have frequent returns of this disease should abstain from wines, especially such as abound with tartar, and their food should be light and easy of digestion. Lying too hot, or too much on the back is injurious.

INFLAMMATION OF THE BLADDER.

THIS disease is attended with an acute, burning pressing pain, towards the bottom of the belly, with a continual inclination and almost constant urgings to void the urine and stools.

Of the former, there is sometimes a total retention, at other times it comes away frequently; but in small quantities at a time, and with much pain: the stools are in general, also obstinately retained, and, when discharged, it is with pain.

Other symptoms of this disease are, a rumbling of the bowels, griping pains, difficulty of breathing, want of appetite, and vomiting, coldness of the extreme parts, a hard, quick, unequal contracted pulse, inquietude, and sometimes convulsions. This is seldom a primary disease: when it occurs it should be treated in the same manner as the inflammation of the kidneys; except that we should not give liquids in large quantities, for fear of irritating or distending the bladder.

The inflammation of the bladder, from internal causes, is a very rare distemper, and when it does happen is to be cured like other inflammations, avoiding only the use of cantharides. When the disease arises from the internal use of these flies, camphire is recommended, besides other cooling medicines, and particularly cooling and emollient clysters.

The lower part of the belly should be fomented with warm water, or a decoction of mild vegetables. The patient

patient should not indulge in any thing that is of a hot, acrid, or stimulating quality, but live entirely upon broths, gruels, or mild vegetables.

A stoppage of urine may proceed from a stone in the bladder, the hardened fœces in the colon, excrescences of the urinary passages, hysseric affections, &c. which require particular treatment; in all of which, however, let it be observed, that mild and gentle applications are the safest, as strong diuretic medicines, or things of an irritating nature, generally increase the danger. Many have killed themselves by introducing probes into the urinary passages, to remove, as they thought, something that obstructed or impeded the discharge of urine; and many others have brought on a violent inflammation of the bladder by using strong forcible diuretics.

PART VII.

OF RHEUMATISM, TOOTH-ACH, GOUT, DROPSY,
JAUNDICE, &c.

THE RHEUMATISM.

THIS is a painful disease, affecting the intermediate spaces between the joints and muscles in different parts of the body; sometimes the viscera are also attacked. It is with or without a fever; when a fever attends, it is called the acute; and when there is no fever, it is called the chronic rheumatism. The ancients called all kinds of pains affecting the external parts or joints, by the common name of arthritis; but about the sixteenth, or beginning of the seventeenth century, some celebrated French physicians called those that were situated any where but in the joints, that is in their tendinous and nervous ligaments, by the name of Rheumatism.

CAUSES. This disease is more frequent in cold than in warm climates. It appears most frequently in autumn and spring; and very seldom during the heat of summer. It may, however, occur at any season, if vicissitudes from heat to cold are frequent. For the most part the acute rheumatism arises from the application of cold to the body, when unusually warm, or when the cold is applied to one part of the body, whilst the other parts are kept warm; or lastly, when the application of cold is long continued, as when moist or wet clothes are applied to any part of the body.

These causes may affect persons of all ages; but the rheumatism seldom appears in very young or in elderly persons, and most commonly occurs from the age of puberty, to that of thirty-five. The causes may also affect persons of any constitution, but they most commonly attack those of a sanguine temperament.

The rheumatism may also be occasioned by removal from a cold to a warm climate, by cold caught during a mercurial course, by excessive evacuations, or the stoppage of customary discharges. It is often the effect of chronic diseases, which vitiate the humours; as the scurvy, the lues venerea, &c.

The nature of rheumatic inflammation is specifically different from inflammation in general, because it never terminates in suppuration or gangrene; but sometimes a serous or watery effusion takes place.

SYMPTOMS. The rheumatism is particularly distinguished by pains affecting the joints, and for the most part the joints alone; but sometimes also the muscular parts. Very often they shoot along the course of the muscles, from one joint to another, and are always much increased by the action of the muscles belonging to the joint or joints affected. The larger joints are those most frequently affected, such as the hip joint and knees of the lower extremities, and the shoulders and elbows of the upper ones. The ankles and wrists are also frequently affected; but the smaller joints, such as those of the toes or fingers, seldom suffer. The pains

do not commonly remain long in the same joint, but frequently shift from one to another, and sometimes return to joints formerly affected; and in this manner the disease often continues for a long time. The pains are more considerable during the night.

The *acute* rheumatism usually begins with weariness, shivering, a quick pulse, thirst, and other symptoms of fever. The patient then complains of flying pains, which are increased by the least motion, and at length fix in the joints, which are often swelled and inflamed. Blood taken from the patient in this disease has generally the same appearance as in the pleurisy.

The acute or inflammatory rheumatism requires, in the first place, a total abstinence from animal food, and from all fermented or spirituous liquors: substituting a mild vegetable or milk diet, and the plentiful use of soft diluting liquors. On this principle, blood-letting is the chief remedy of acute rheumatism. The blood is to be drawn in a large quantity; and the bleeding is to be repeated in proportion to the frequency, fulness, and hardness of the pulse, and the violence of the pain. For the most part, large and repeated bleedings, during the first days of the disease, seem to be necessary, and accordingly have been very much employed; but to this some bounds are to be set; for very profuse bleedings occasion a slow recovery, and, if not absolutely effectual, may change the disease into the chronic rheumatism.

To avoid that debility of the system which general bleedings are apt to occasion, the urgent symptom of pain may be often relieved by topical bleedings; and when any swelling or redness have come upon a joint, the pain may very certainly be relieved by topical bleedings, but they will not assist the general plan proposed above so well as general bleedings.

Purging may be useful, if procured by medicines which do not stimulate the whole system, as neutral salts, and other medicines which have a refrigerant power. Purging, however, is not so useful as bleeding; besides, when the disease has become general and violent, frequent stools are inconvenient.

In this disease external applications are of little service: fomentations, in the beginning of the disease, rather aggravate than relieve the pains. Blisters, if placed on the part affected, are sometimes useful. Dr. Cullen says, they seldom fail of success if applied before the swelling comes on. In chronic rheumatisms their efficacy is more frequently useful.

The several remedies above-mentioned moderate the violence of the disease, and sometimes remove it entirely; but they sometimes fail, and leave the cure imperfect. Opiates, except where they are directed to procure sweat, always prove hurtful, in every stage of this disease. The Peruvian bark has been supposed a remedy in some cases; but it is seldom found useful, and frequently hurtful. Calomel, and other preparations of mercury, have been recommended in some cases of acute rheumatism; but they are only useful in cases approaching to the nature of the chronic kind.

The *chronic* rheumatism is seldom attended with any considerable degree of fever, and is generally confined to some particular part of the body, as the shoulders, the back, or the loins. There is seldom any inflammation or swelling in this case. When the pained joints are without redness; when they are cold and stiff; when they cannot easily be made to sweat; or when, while a free and warm sweat is brought out on the rest of the body, it is only clammy and cold on the pained joints; and when further, the pains of these are increased by cold, and relieved by heat applied to them, the case is to be considered as that of a purely chronic rheumatism.

The chronic rheumatism may affect different joints; but is especially apt to affect those which are surrounded with many muscles, and those of which the muscles are employed in the most constant and vigorous exertions. Such is the case of the vertebræ of the loins, the affection of which is named *lumbago*; or of the hip-joint, when the disease is named *sciatica*.

The general curative indications in the chronic rheumatisms, are to restore the activity and vigour of the parts

parts affected, and the system in general. Supporting the heat of the part with flannel or fleecy hosiery; the increasing the heat of the part by external heat, applied either in a dry or humid form; the diligent use of the flesh-brush, or other means of friction; the application of electricity in sparks or shocks; the application of cold water by effusion, or pouring, or by immersion: the application of essential oils of the most warm and penetrating kind; the application of salt brine; and lastly, the employment of exercise either of the part itself, as far as it can easily bear, or by riding, &c.

In this kind of rheumatism the regimen should be nearly the same as in the acute. Cool and diluting diet, consisting principally of vegetable substances, as stewed prunes, coddled apples, currants or gooseberries boiled in milk, is extremely proper. Whey is also to be used; and cream of tartar in water-gruel, taken for several days.

The internal remedies are, large doses of essential oils drawn from resinous substances, such as turpentine; substances containing such oils, as guaiac; volatile alkaline salts; these or other medicines directed to procure sweat; and calomel, or some other preparation of mercury, in small doses, continued for some time. Besides these, there are several others recommended; as bleeding, general and topical; burning, blistering, and issues; but these are only useful when the disease still partakes of the nature of the acute rheumatism. Cupping upon the part affected is often found very beneficial, and is greatly preferable to the application of leeches.

Though the chronic rheumatism may not seem to yield to medicines for some time, they ought still to be persevered in. Persons subject to frequent returns of the rheumatism, should continue to use such medicines, though they may not be immediately affected with the disease. In this case, as in the gout, the best way to extirpate it is to have recourse to proper medicines when the patient is most free from the disorder.

The

The warm baths of Buxton or Matlock in Derbyshire, have often cured very obstinate rheumatisms. When the rheumatism is complicated with scorbutic complaints, the Harrogate waters and those of Moffat are very proper.

A table-spoonful of white mustard-seed, taking twice or three times a day, in a glass of water or weak wine, is highly beneficial in the rheumatism. The water trefoil is also of great use, either infused in wine or ale, or drank as tea. The ground-ivy, camomile, and several other bitters, are also extremely proper, and may be taken in the same manner. But they must be taken for a considerable time before any considerable benefit can be expected from them. Want of perseverance in the use of medicine is perhaps a principal reason why chronic diseases are so seldom cured.

Cold bathing, especially in salt water, is often an effectual cure for the rheumatism: riding on horseback, and wearing flannel next the skin, afford great benefit. Perspiration must be promoted, for which purpose the parts should be diligently rubbed with a flesh brush night and morning.

Issues are very proper, especially in chronic cases: if the pain affects the shoulders, let an issue be made in the arm; if it affects the loins, let it be in the leg or thigh.

Persons subject to frequent attacks of the rheumatism, should be careful to make choice of a dry warm situation, and to avoid the night-air, wet clothes, and wet feet as much as possible. Their cloathing should be warm.

THE TOOTH-ACH.

THIS well-known disease makes its attack by a violent pain in the teeth, reaching sometimes up to the eyes, and sometimes backward into the cavity of the ear. At the same time a remarkable tension and inflation of the vessels takes place, not only in the parts
next

next to that where the pain is seated, but over the whole head. The tooth-ach is indeed only the name of a symptom of some disease with which the tooth is affected.

This disease has great affinity with the rheumatism, and often succeeds pains of the shoulders, and other parts of the body. Sometimes the tooth-ach is merely a rheumatic affection, arising from cold, but more frequently from a carious tooth. It is also a symptom of pregnancy, and takes place in some nervous disorders; it may attack persons at any time of life, though it is most frequent in the young and plethoric.

The tooth-ach happens either from external or from internal causes. The external are such as rot the teeth by destroying their enamel; and thus procuring an access of air to their bony part. Hot and cold liquors, frequent picking of the teeth with hard instruments, as pins, &c. soon destroy this enamel; and when once the tooth is carious, the only cure is to extract it.

Nothing is more destructive to the teeth than cracking nuts, or chewing any kind of hard substances. Great quantities of sugar, or other sweetmeats are likewise hurtful.

Disorders in the teeth depend chiefly on a caries in them; an inflammation in the membrane, which covers their roots, &c. and a defluxion of humours on such membrane. When a tooth is carious it often occasions a fetid or stinking breath, and by the air passing into, or any warm or cold substance touching it, pain is excited: relief is often found by filling the carious part with mastic.

In case of an inflammation in the membrane which spreads itself about the roots of the teeth, bleeding or purging, according to the state of the constitution, will be needful; warm barley-water may also be held in the mouth, and such other general methods may be used as are found to be useful in other inflammatory disorders.

When a defluxion of humours gives rise to complaints in the teeth, purging will be peculiarly useful; and

and horse radish or pellitory root may be held between the gums and cheeks, to excite a discharge of saliva.

A modern writer recommends the following mode of treating the tooth-ach at its commencement, as being perfectly safe, and likely to render farther assistance unnecessary:—

“Should a tooth, which on examination appears to
 “be perfectly sound, be affected with excessive pain,
 “it will be proper, as soon as possible, to put the feet
 “and legs into warm water, in which they may remain
 “about a quarter of an hour. After this, the patient
 “should go into bed, securing on the pained side of
 “the face a piece of doubled flannel, wetted with any
 “spirits, made warm by being held in a saucer over
 “the flame of a candle: he should also drink freely of
 “warm barley-water, or of any other diluting drink,
 “and endeavour to excite perspiration as speedily as
 “possible, by breathing under the bed-clothes, &c.
 “Should the pain still continue, leeches may be applied
 “externally near the angle of the jaw, and a blister
 “also may be applied behind the ear. If the tooth is
 “considerably decayed, a dostil of lint dipped in the
 “tincture of opium, or a small pill of the opium pill of
 “the shops, may be introduced into the cavity, and
 “occasionally renewed. If this simple, but frequently
 “efficacious plan should fail, application must be made
 “to some surgeon, or skilful dentist.” *Med. Adm.*
 p. 141.

A morbid quality introduced into the general habit may give rise to disorders in the teeth, as happens in scorbutic and venereal patients; in which cases the method of cure will consist in freeing the constitution from these kind of complaints.

Many empirical remedies have been proposed for the cure of the tooth-ach, but none have in any degree answered the purpose. When the affection is purely rheumatic, blistering behind the ear will almost always remove it; but when it proceeds from a carious tooth, the pain is much more obstinate. In this case it has been recommended to touch the pained part with a hot iron,

iron, or with oil of vitriol, in order to destroy the aching nerve; to hold strong spirits in the mouth; to put a drop of oil of cloves into the hollow of the tooth; or a pill of equal parts of opium and camphire. The Peruvian bark has also been recommended, and perhaps with more justice, on account of its tonic and antiseptic powers. Smoking or chewing tobacco, when it can be done without material inconvenience to the stomach, may be advised, and will frequently afford relief: but very often all these remedies will fail, and the only infallible cure is to draw the tooth.

After all that can be said upon this subject, if a tooth is carious, it is often impossible to remove the pain without removing the tooth: when once decayed or injured, it can never become sound again, and therefore should be removed from good ones, lest its presence should contaminate or corrupt them.

The tooth-ach which returns periodically, and which chiefly affects the gums may be cured by the Peruvian bark.

The best method of keeping the teeth clean, and in a great degree preventing the tooth-ach, is to wash them daily with salt and water, a decoction of the bark, or with cold water alone. Brushing and scraping the teeth, unless performed with great prudence and care, does mischief.

Tooth-drawing, however wrong in many cases, is certainly right and necessary in others: In children, for the removing their lacteal teeth; for when they are left too long in their sockets, they displace the new ones, and turn them awry: In infants it is also necessary to draw such teeth as grow out of the palate, or out of improper parts of the mouth, and are placed so as impede their speaking or sucking: In a tooth-ach proceeding from a tooth being carious, and giving way to no medicines, drawing is the last resort, and is absolutely necessary: Those teeth ought to be drawn which, by their irregular figure and position, lacerate the gums and lips, and cannot be brought into shape by the file. And lastly it is sometimes necessary to draw a tooth

for the curing a fistula or ulceration of the gums near the roots of the teeth.

Tooth-drawing ought always to be performed with care. The regular method of drawing them is this: If the tooth is in the lower jaw, the patient must be seated on a low seat, or on the floor; and if in the upper jaw, he must be placed on a high stool, or table; then the proper instrument is to be selected, and the tooth carefully drawn as a nail out of a piece of wood. But this must never be done while the gums are inflamed, swelled, or otherwise diseased.

Topical bleeding does not give much relief in the tooth-ach.

THE GOUT.

THE gout, or arthritis, is a painful disease, occasioned by a flux of sharp humours. It is supposed to arise from two causes; a redundancy of humours, and a weakness of the system. Its proper seat is in the limbs, not in the body; in the latter case, it frequently proves mortal; not in the former.

The gout may be considered as a painful, periodical, and critical paroxysm, tending to free the body of an offensive or corrosive matter, by throwing it on the extremities, breathing it out insensibly, or comminuting or reducing it so as to render it harmless, or capable of circulating freely along with the juices, till, by collecting again, gradually increasing, or separating from the blood, it causes another paroxysm.

CAUSES. It is generally an hereditary disease: but some persons, without any hereditary disposition, seem to acquire it: and in some an hereditary disposition may be counteracted from various causes. It attacks the male sex especially; but it sometimes, though more rarely, attacks also the female. The females liable to it are those of the most robust and full habits; and it very often happens to those before the menstrual evacuation has ceased. Dr. Cullen has also found it occurring

curring in several females whose menstrual evacuations were more abundant than usual.

The gout seldom attacks eunuchs; and when it does, seems to fall upon those who happen to be of a robust habit, to lead an indolent life, and to live very full. It attacks especially men of robust and large bodies, who have large heads, and are of full and corpulent habits. The gout seldom visits persons employed in constant bodily labour, or those who live much upon vegetable aliment.

It does not commonly attack men till after the age of thirty-five, and generally not till a later period. There are indeed instances of the gout appearing more early; but these are few in comparison of the others. When the gout does appear early in life, it seems to be in those who have the hereditary disposition very strong, and to whom the remote causes have been applied in a very considerable degree.

The occasional causes of the disease seem to be of two kinds: First, those which produce a plethoric state of the body. Secondly, those which, in plethoric habits, induce a state of debility. Of the first kind are a sedentary, indolent manner of life, and a full diet of animal food. Of the second kind of occasional causes which induce debility, are early excess in venery; intemperance in the use of intoxicating liquors; indigestion, produced either by the quantity or quality of the aliments; excessive evacuations; the ceasing of usual labour; strait shoes; a sudden change from a very full to a very spare diet; the large use of acids; and cold applied to the lower extremities.

"It is a common observation," says the Medical Admonisher, "that the affluent are, in general, the subjects of this malady; it seldom happening, that those of the inferior class of people are troubled with it, except they have received it as their reward for copying the follies and vices of their superiors in fortune."

To the above causes may be added, night-watching; grief, or uneasiness of the mind; an obstruction or defect

of any of the customary discharges, as the menses, sweating of the feet, perspiration, &c.

The gout is distinguished from rheumatism by the pain being more confined to the joints of the extremities: it is less apt to shift, and when it does, it is generally into the corresponding limb, or some of the internal parts. The pains are more generally attended with redness and swelling. There is no immediate danger while the gout is in the limbs; but the danger is great when the head or stomach is the seat of complaint.

SYMPTOMS. What is called a paroxysm or fit of the gout is principally constituted by an inflammatory affection of some of the joints. This sometimes comes on suddenly, without any previous notice, but is generally preceded by several symptoms. In people who have sweaty feet, the discharge stops; there is an unusual coldness in the feet and legs, a frequent numbness, with a sense of pricking, and frequent cramps in them, and an unusual turgidity in the veins. The patient is affected with a heaviness and languor, and the functions of the stomach in particular are more or less disturbed; and the appetite is impaired.

The circumstances of paroxysms, or fits of the gout, are the following. They come on most commonly in the spring; and sooner or later, according as the vernal heat succeeds sooner or later to the winter's cold; and, perhaps, sooner or later also, according as the body may happen to be more or less exposed to vicissitudes of heat and cold.

The attacks are sometimes felt first in the evening, but more commonly about two or three o'clock in the morning. The fit begins with a pain affecting one foot, most frequently in the ball or first joint of the great toe, but sometimes in the other. This is frequently accompanied with some degree of shivering; which, as the pain increases, gradually ceases; and is succeeded by heat, which continues while the pain continues.

From

From the first attack, the pain becomes, by degrees, more violent, and continues in this state, with great restlessness of the whole body, till next midnight, and then it gradually remits; and after it has continued for twenty-four hours from the attack, it commonly ceases entirely; and, with the coming on of a gentle sweat, allows the patient to fall asleep. Upon coming out of this sleep in the morning, he finds the pained part affected with some redness and swelling, which, after having continued for some days, gradually abate.

The patient is always worse towards night. The paroxysms, however, generally grow milder every day, till at length the disease is carried off by perspiration, urine, and the other evacuations. In some patients this happens in a few days; in others it requires weeks; and in some it requires months to finish the fit.

When the fit, after having thus remained for some time in a joint, ceases entirely, it generally leaves the person in very perfect health, enjoying greater ease and alacrity in the functions of both body and mind than he had for a long time before experienced. At the beginning of the disease, the returns of it are sometimes only once in three or four years: but, as it advances, the intervals become shorter, and at length the visits are annual; afterwards they occur twice a year; and at last several times during the whole course of autumn, winter, and spring; and when the fits are frequent they become also longer, so that, in the advanced state of the disease, the patient is hardly ever tolerably free from it, except perhaps for two or three months in the summer.

The progress of the disease is also marked by the parts which it affects. At first it commonly affects one foot only; afterwards every paroxysm affects both feet, the one after the other; and, as the disease proceeds, it not only affects both feet at once, but after having ceased in the foot which was secondly attacked, returns again into the first, and perhaps a second time also into the other.

Its

Its changes of place are not only from one foot to another; but from the feet into other joints, especially those of the upper and lower extremities; so that there is hardly a joint of the body that on one occasion or other is not affected. It sometimes affects two different joints at the same time, but most usually is at any one time severe in a single joint only, and passes successively from one joint to another, so that the patient's affliction is often protracted for a long time.

When the disease has often returned, and the paroxysms have become very frequent, the pains are generally less violent than they were at first. After the first fit, the joints which have been affected are entirely restored to their former suppleness and strength: but when the disease has recurred very often, the joints affected do neither so suddenly nor entirely recover their former state, but continue weak and stiff; and these effects at length proceed to such a degree, that the joints lose their motion entirely.

In some persons, but not in all, after the disease has frequently recurred, concretions, or gatherings, of a chalky nature are formed upon the outside of the joints, and, for the most part, immediately under the skin. The matter seems to be deposited in a fluid form, afterwards becoming dry and firm. In their firm state, these concoctions are a friable earthy substance, entirely soluble, or capable of being dissolved in acids. After they have been formed, they contribute, with other circumstances, to destroy the motion of the joint.

REGIMEN and CURE. It seems necessary to observe, in the first place, that a cure has generally been thought impossible; and it appears very probable that the gout, as a disease of the whole habit, and very often depending upon original confirmation, cannot be cured by medicines, the effects of which are always very transitory, and seldom extend to the producing any considerable change of the whole habit. It would perhaps have been fortunate for gouty persons, if this opinion had been implicitly received by them; as it would have prevented their having been so often the dupes

dupes of self-interested pretenders, who have either amused them with inert insipid medicines, or have rashly employed those of the most pernicious tendency.

We are much disposed to believe the impossibility of cure for the gout by medicines; and more certainly still inclined to think, that, whatever may be the possible power of medicines, yet no medicine for curing the gout has hitherto been found; although almost every age has presented a new remedy, all hitherto offered have, very soon after, been either neglected as useless, or condemned as pernicious.

Dr. Cullen contends, that a great deal may be done towards the cure of the gout by a regimen; and is firmly persuaded that any man, who, early in life, will enter upon the constant practice of bodily labour, and of abstinence from animal food, will be preserved entirely from the disease.

Whether there be any other means of radically curing the gout, the Doctor is not ready to determine. There are histories of cases of the gout, in which it is said, that by great emotions of mind, by wounds, and by other accidents, the symptoms have been suddenly relieved, and never again returned; but how far those accidental cures might be imitated by art, or would succeed in other cases, is at least extremely uncertain.

The practices proper and necessary in the treatment of the gout are to be considered under two heads: *First*, as they are to be employed in the intervals of paroxysms, or fits; or *Secondly*, as during their continuance. In the intervals of paroxysms, the indications are to prevent altogether the return of paroxysms; or at least to render them less frequent, and more moderate. During the time of paroxysms, the indications are, to moderate the violence, and shorten the duration of them, as much as can be done with safety.

It has been already intimated, that the gout may be entirely prevented by constant bodily exercise, and by a low diet; and Dr. Cullen is of opinion, that this prevention may take place even in persons who have hereditary dispositions to the disease. Even when the
4 disposition

disposition has discovered itself by several paroxysms of inflammatory gout, he is persuaded that labour and abstinence will absolutely prevent any returns of it for the rest of life; These, therefore, are the means of answering the first indication to be pursued in the intervals of the paroxysms.

Exercise, in those disposed to the gout, is directed to two purposes. One of these is the strengthening of the tone of the extreme vessels; and the other, the guarding against a plethoric state. For the former, if *exercise* be employed early in life, and before intemperance has weakened the body, a very moderate degree of it will answer the purpose; and for the latter, if abstinence be at the same time observed, little exercise will be necessary.

With respect to exercise, this in general is to be observed, that it should never be violent; for, if violent, it cannot be long continued, and must always endanger the bringing on an atony in proportion to the violence of the preceding exercise. In more advanced states of the disease, however, when there is some disposition to a paroxysm, much walking will bring it on; either as it weakens the tone of the lower extremities, or as it excites an inflammatory disposition in them; and thus it seems to be that strains or contusions often bring on a fit of the gout.

Abstinence, or the other part of our regimen for preventing the gout, is of more difficult application. If an *abstinence from animal food* be entered upon early in life, while the vigour of the system is yet entire, there is no doubt of its being both safe and effectual; but if the motive of this diet shall not have occurred till the constitution has been broken by this intemperance, or by the decline of life, a low diet may then endanger the bringing on an atonic state, and the safety of an abstemious course may be greater or less, according to the management of it.

It is animal food which especially disposes to the plethoric and inflammatory state, and that food is to be therefore especially avoided; but, on the other hand,
it

it is vegetable aliment of the lowest quality that is in danger of weakening the system too much, by not affording sufficient nourishment, and more particularly of weakening the tone of the stomach by its acescency. A diet of a middle nature is therefore to be chosen; and milk is precisely of this kind, as containing both animal and vegetable matter. The farinaceous or mealy seeds are next to be chosen; and are the most proper food to be joined with milk.

With respect to drink, fermented liquors are useful only when they are joined with animal food, and that by their acescency; and their stimulus is only necessary from custom. When, therefore, animal food is to be avoided, fermented liquors are unnecessary, and by increasing the acescency of vegetables, the liquors may be hurtful. The stimulus of fermented or spirituous liquors is not necessary to the young and vigorous, and, when much employed, impairs the tone of the system. These liquors therefore are to be avoided, except so far as custom, and the declining state of the system may have rendered them necessary. For preventing or moderating the regular gout, water is the only proper drink.

Thus it appears that the measures necessary for the purpose of avoiding the gout, must, in most cases, be pursued with difficulty, and even with reluctance; men have therefore been very desirous to find a medicine which might answer the purpose, without any restraint on their manner of living. To gratify this desire, physicians have proposed, and, to take advantage of it, empirics have feigned many remedies. Of what nature several of these remedies have been, it is difficult to say: but of those which are unknown, we conclude, from their having been only of temporary fame, and from their having soon fallen into neglect, that they have either been useless or pernicious, and therefore shall not make any enquiry after them. One or two, however, which have been lately in vogue, it may not be impertinent to notice.

One of these is what has been named in England the *Portland Powder*. This is so far from being a new medicine, that it is mentioned by Galen, and, with some little variation in its composition, has been mentioned by the writers of almost every age since that time. It seems to have been at times in fashion, and to have again fallen into neglect; owing, perhaps, to its having been found, in many instances, pernicious. In every instance we have known of its exhibition for the length of time prescribed, the persons who had taken it were indeed afterwards free from any inflammatory affection of the joints; but they were affected with many symptoms of the atonic gout; and all, soon after finishing their course of the medicine, have been attacked with apoplexy, asthma, or dropsy, which proved fatal.

Another remedy which has had the appearance of preventing the gout, is an alkali in various forms; such as the fixed alkali, both mild and caustic, lime-water, soap, and absorbent earths. Since it became common to exhibit these medicines in nephritic and calculous cases, it has often happened that they were given to those who were at the same time subject to the gout; and it has been observed, that under the use of these medicines, gouty persons have been longer free from the fits of their disease. That, however, the use of these medicines has entirely prevented the returns of the gout, Dr. Cullen observes, that he never pushed the use of these medicines for a long time, being apprehensive that the long-continued use of them might produce a hurtful change in the state of the fluids.

Some have kept the gout off for several years by the Peruvian bark, and other astringent medicines; but in all the cases the persons died suddenly; and, to all appearance, for want of a regular fit of the gout: Hence it seems clear that a fit of the gout, in some constitutions, in the decline of life, is rather salutary than hurtful.

In the fit of the gout, if the patient be young and strong, his diet should be thin and cooling, and his
 eno drink

drink diluting; but if the constitution of the patient is weak, and he has been accustomed to live high, this is not a proper time to retrench: he should keep up nearly to his usual diet, and frequently take a glass of wine. Wine-whey is useful in this case, as it promotes perspiration without greatly heating the patient. At bed-time it will be proper to give the patient a tea-spoonful of the volatile tincture of guaiacum, in a large draught of warm wine-whey: perspiration will thus be much promoted.

Bleeding must be prescribed with caution; cold must not be applied. In the young and strong, one bleeding in the arm may be ventured upon, and is practised in the beginning with advantage, but it must not be repeated; leeches may sometimes be applied to the inflamed part; but we must avoid warm bathing, poulticing, blistering, or any other application, except the leeches, lest it should repel the disease. The parts should be wrapped in new-combed wool, and when the violence of the symptoms is abated, and they return so as to occasion restless uneasy nights, opiates may be given with great safety and advantage, to those advanced in life especially, and who have often had fits of the gout.

The stiffness and swelling are to be removed by a diligent use of the flesh-brush, gentle motion of the parts, and the Buxton and Bath waters used on the spot. Purging, says Dr. Temple, immediately after the fit, will be very likely to bring it on again. *Temple's Prac.* 67.

The patient ought to be kept quiet and easy during the fit; for every thing that affects the mind disturbs the paroxysm, and tends to throw the gout on the nobler parts. All external applications that repel the matter are to be avoided as death. Instead of curing the disease, they remove it from a safer to a more dangerous part, where it frequently proves fatal. We may observe, in general, that as the gout is an effort of nature to free herself from an offending cause, it

ought to be promoted and not restrained, by any repellent applications or remedies.

Mr. Parkinson is of opinion, that "The regimen, during the paroxysm, should be of such a kind as will support the strength, without increasing the heat: broths, puddings, jellies, light meats, &c. are therefore proper. But spirits, or wines must be carefully avoided, as well as salt meats, and all high-seasoned food."

A regular fit of the gout frequently removes several complaints that the patient had before been subject to, such as epilepsy and other nervous disorders, intermittent fevers, dropsy, asthma, nephritic, and dyspeptic complaints.

When the gout attacks the head or lungs, every endeavour must be used to fix it in the feet. The feet must be frequently bathed in warm water, and acrid cataplasms applied to the soles. Blistering plasters ought also to be applied to the ankles or calves of the legs. Bleeding in the feet or ankles is likewise necessary, and warm stomachic purges. The patient ought to be kept chiefly in bed, if there be any signs of inflammation, and great care should be taken to prevent his catching cold.

If the gout attacks the stomach with a sense of cold, the warmest cordials are necessary; as strong wine boiled up with cinnamon, or other spices; cinnamon-water; peppermint-water, and even brandy or rum. The patient should keep in bed, and endeavour to promote perspiration by drinking warm liquors. If he should be troubled with a nausea, or inclination to vomit, camomile-tea may be drank to make him vomit freely.

An early going to bed is strictly to be conformed to, but early rising is not so necessary.

When circumstances admit, gouty patients should always endeavour to be in a good air when they expect the return of the fit. In the country, perspiration is most easily supported, and there the patient recovers the soonest. A warm and dry air is almost alone both a preservative from, and a cure of the gout.

To

To support perspiration, and preserve the heat of the body as nearly as possible to that of health, are leading points of management through the whole of the paroxysm.

The Bath water is almost a specific in enfeebled constitutions.

THE DROPSY.

A PRETERNATURAL collection of watery fluid in any part of the body is called dropsy, of which there are several species, having different names, according to the different parts in which it is contained. As the *anasarca*, or a collection of water under the skin: the *ascites*, or a collection of water in the belly: the *hydrocephalus internus*, or dropsy of the head: the *hydrothorax*, dropsy of the breast, &c.

In *anasarca* the feet first begin to swell, especially in the evening, after exercise, and when the patient has stood or sat long; which swelling rises frequently to the thighs. By lying in bed, the swelling becomes less, or even almost disappears. In the progress of the disease, the swelling often rises to the hips, loins, and belly, and at last covers the whole body. The swelling is soft and inelastic, and retains for some time the impression of the finger; the colour of the skin is paler than usual; and sometimes, in the advanced stage, it exhibits more or less of a livid hue. The swelling is uniform, and sometimes spreads over the whole surface of the body, gradually ascending to the trunk and superior parts, but the most inferior are the most loaded. The patient has great thirst, the urine is small in quantity, high-coloured, and deposits a reddish sediment. In the advanced stage of the disease, there are palpitations of the heart, cough, and faintings; and the skin is dry in general, through the whole of the complaint.

In the beginning of an *ascites* the patient becomes languid, and has an aversion to motion: his belly swells; and when struck, the sound of fluctuating water is perceptible:

ceptible: there is a difficulty of breathing when the belly is pressed. There is an almost continual thirst: the face is sometimes bloated, pale, or of a livid hue. In the advanced stage the pulse is frequent; the urine is small in quantity, and high-coloured; and this is especially the case when the disease is attended with general dropfical symptoms, which however do not always accompany ascites.

CAUSES. The general immediate cause of all dropfies, is the exhalent vessels throwing off more fluid, than the absorbent vessels can take up again. This may be occasioned either by too great a quantity of liquid thrown out by the former, or by an inability of the latter to perform their office. This commonly happens in people whose bodies are of a weak lax texture, and hence women are more subject to this malady than men.

Sometimes this disease is occasioned by a debility of the vital powers; by great evacuations of blood; by acute diseases accidentally protracted beyond their usual period; by debility of the system, especially that brought on by the immoderate use of spirituous liquors, producing obstructions of the liver or other abdominal viscera; obstructions of the lungs, which may cause dropfy by impeding the return of the blood to the heart; drinking large quantities of cold, weak, watery liquor, when the patient was heated by violent exercise, or after being accustomed to more generous liquor; exposure for a length of time to a damp atmosphere.

The dropfy is sometimes owing to an hereditary disposition; to want of exercise; the sudden stoppage of customary or necessary evacuations; it may also be occasioned by a too frequent use of a poor diet, or of aliment hard of digestion. It is sometimes the effect of other diseases, as the jaundice, a violent ague, a dysentery, a diarrhoea, or a consumption of the lungs.

REGIMEN. The patient should drink but little, especially of watery liquors. To quench his thirst he should take mustard whey, or acids, as orange-juice, lemon-juice, sorrel, &c. Exercise is of great importance

ance in the dropsy. If the patient be able to walk, dig, &c. he should continue these exercises as long as he can. If he cannot undertake such labour, he should ride on horseback, or in a carriage: his bed should be hard, and the air of his apartment warm and dry. His body should be rubbed two or three times a day, with a hard cloth or a flesh-brush, and he should constantly wear flannel or fleecy hosiery next his skin.

It may be worthy of remark here that Dr. Buchan says, in his Domestic Medicine, "The patient must abstain, as much as possible, *from all drink*, especially "weak and watery liquors; his aliment ought to be dry, "of a stimulating and diuretic quality, as toasted bread, "the flesh of birds, or other wild animals roasted, pungent and aromatic vegetables, as garlic, mustard, "onions, cresses, horse-radish, rocambole, shalot, &c. "He may also eat sea-biscuit, dipt in wine, or a little "brandy. This is not only nourishing, but tends to "quench thirst. Some have been actually cured of a "dropsy, by a total abstinence from *all liquids*, and living intirely upon such things as are mentioned above."

Dr. Buchan's opinion, in this case, is not *new*: for a great number of ages, it has been recommended to dropfical patients to abstain as much as possible from *drink*, and thus to the torments of their disease was added that of an intolerable thirst: but Dr. Milman endeavours to shew, at great length, the pernicious tendency of this practice. He maintains that it is quite contrary to the sentiments of Hippocrates, and the best ancient physicians. He asserts, that unless plenty of diluting drink is given, the best diuretics can have no effect. He condemns also, in the strongest terms, the practice of giving dropfical patients only dry, hard, and indigestible aliments.

"These," says he, "would oppress the stomach of "the most healthy; and how much more must they do "so to those who are already debilitated by labouring "under a tedious disorder? By what means also are "these aliments to be dissolved in the stomach when "drink is withheld? In this disease the saliva is viscid, "and

and in small quantity; from whence it may be reasonably conjectured that the rest of the fluids are of the same nature, and the gastric juices likewise depraved. Thus the aliments lie long in the stomach; and if the viscera were formerly free of obstructions, they are now generated; the strength fails; perspiration and other excretions are obstructed; the viscid and pituitous humours produced by these kinds of food float about the præcordia, and increase the disease, while the surface of the body becomes quite dry. Nay, so much does this kind of diet *conspire with the disease*, that a thousand pounds of fluid will sometimes be imbibed in a few days by hydropic, (or dropical) persons *who take no drink*. Even in health, if the body from any cause becomes dry, or deprived of a considerable part of its juices, as by hunger, labour, &c. it will imbibe a considerable quantity of moisture from the air; so that we must impute the above-mentioned extraordinary inhalation, in part at least, to the denial of drink, and to the nature of the aliment given to the sick."

On this subject, Dr. Temple has the following observations: "It has been a general rule, and very rigidly observed, to refuse *liquids* to dropical patients. As great thirst is almost always a symptom, and when not quenched it is a most distressing one, it is proper to observe, that cold water has been frequently allowed without increasing the disorder, and that sometimes it has been cured by large draughts of cold water. When, however, it has been liberally allowed, and the quantity of urine is not increased by it, its use should be discontinued." He adds that, "cyder, drank to the quantity of two quarts in a day, has cured dropsy." *Temple's Pract.* 239.

CURE. The following is the method, related by Dr. Milman, of his practice in the Middlesex Hospital: "If the patient is not very much debilitated, he is sometimes treated with the purging waters, and a dose of jalap and calomel alternately. On the intermediate days he gets a saline mixture, with forty or sixty drops
of

“ of *acetum scilleticum* every sixth hour; drinking with
 “ the purgatives oat-gruel and some thin broths. That
 “ he might the better ascertain what share the liquids
 “ given with the medicines had in producing a copious
 “ flow of urine, he sometimes gave the medicines in the
 “ beginning of the distemper without allowing the
 “ drink: but though the swellings were usually dimi-
 “ nished a little by the purgatives, the urine still conti-
 “ nued scanty, and the patients were greatly weakened.
 “ Fearing, therefore, lest, by following this course, the
 “ strength of the sick might be too much reduced, he
 “ then began his course of diuretic medicines, giving
 “ large quantities of barley-water with a little *sal diure-*
 “ *ticus*; by which means, sometimes in the short space
 “ of forty-eight hours after the course was begun, the
 “ urine flowed out in a very large quantity: but as sa-
 “ line drinks are very disagreeable to the taste, a drink
 “ was composed purposely for dropfical persons, of half
 “ an ounce of cream of tartar, dissolved in two pounds
 “ of barley-water, made agreeably sweet with syrup,
 “ adding one or two ounces of French brandy.”

To this composition Dr. Milman was induced by the
 great praises given to cream of tartar, by some phy-
 sicians, in dropfical cases. In the *Acta Bononiensia*, fif-
 teen cases of dropfical persons are given who were cured
 only by taking half an ounce of cream of tartar daily.
 But it is remarkable, that, by these very patients, the
 cream of tartar was taken for twenty, thirty, nay forty
 days, often without any perceptible effect; yet when
 dissolved in a large quantity of water, it shewed its sa-
 lutary effects frequently within as many hours, by pro-
 ducing a plentiful flow of urine. This liquor is now the
 common drink of dropfical patients in the hospital above-
 mentioned, of which they drink at pleasure along with
 other medicines.

Among the purgative medicines Dr. Milman recom-
 mends the feneka root; but says, when the decoction is
 too strong, he always found it excite vomiting, and thus
 greatly to distress the patients; but when only half an

ounce, or six drams of the root are used to a pound of decoction, instead of a whole ounce, he found it an excellent remedy.

Thus far we are indebted to Dr. Milman.—If the patient be young and strong, and the disease comes on suddenly, it may in general be removed by strong vomits, brisk purges, and such medicines as promote a discharge by sweat and urine. For an adult half a dram of ipecacuanha in powder, and half an ounce of oxymel of squills, will be a proper vomit. This may be repeated at discretion, observing that three or four days intervene between the doses. The patient may work it off by a cup or two of camomile-tea.

On one of the intermediate days, betwixt each vomit, the following purge may be taken: jalap in powder half a dram, cream of tartar two drams, calomel six grains. Make these into a bolus with a little syrup of pale roses, and take it early in the morning. If the patient should find himself much griped he may take occasionally a cup of chicken broth.

The patient may also take every night at bed-time the following bolus: to about four grains of camphor, add one grain of opium, mixed with a sufficient quantity of syrup of orange-peel to make them into a bolus. This will generally promote a salutary gentle sweat.

There is a singular method of procuring the urinary discharge recommended in this case, which is, long-continued gentle friction of the abdomen with the fingers dipped in oil; this is to be repeated daily.

Fomenting the belly with hot salt and water, or seawater, for an hour twice a day, has been of use.

A tea-cup full of the following diuretic infusion, taken every four or five hours, will be found beneficial: take juniper-berries, mustard seed, and horse-radish, of each half an ounce; ashes of broom half a pound; infuse them in a quart of Rhenish wine, or strong ale for a few days, and afterwards strain off the liquor.

To promote a discharge of urine, the following infusion of the London hospitals will be found efficacious: take of zedoary root, two drams; dried squills, rhubarb,

and juniper-berries bruised, of each a dram; cinnamon in powder, three drams; salt of wormwood, a dram and a half: infuse in a pint and half of old hock wine, and when fit for use, filter the liquor. A wine-glass of this infusion may be taken three or four times a-day.

The forms of diuretics are numerous, and so much abound in all practical writers, as to render a long list of them unnecessary here: however, as squills are generally used in these cases, it may be observed, that they are most diuretic when neither very dry nor very moist, and when given in as full doses as will sit easy on the stomach; nitre improves their operation by the kidneys; and may be added in a double proportion to that of the squills; and to check the nausea which they excite, a glass of cinnamon water is effectual.

Ball informs us, that a large spoonful of unbruised mustard seed, taken every night and morning, and drinking half a pint of the decoction of the tops of green broom after it, has performed a cure, when other powerful medicines had proved ineffectual.

But when the dropsy proceeds from a bad habit, or an unsound state of the viscera, strong purges and vomits are not to be ventured upon. It will then be the safer course to palliate the symptoms by the use of such medicines as promote the secretions, and to support the patient's strength by warm and nourishing cordials.

It may here be noticed, that in *anasarca* it is usual to scarify the feet and legs. Thus the water is often discharged: but the operator must be cautious not to make the incisions too deep; they ought barely to penetrate through the skin; and especial care must be taken, by spirituous fomentations and proper digestives, to prevent a gangrene. Dr. Fothergill observes, that the safest and most efficacious way of making these drains, is by the instrument used for cupping, called a *scarificator*; and he always ordered it to be so applied as to make the little wounds transversely; as they not only discharge better, but are also longer in healing than when made longitudinally.

In an *ascites*, when all other methods fail, the water ought to be let off by tapping. This is a safe and simple operation, and is at least a palliative, and if earlier would often be absolutely curative. When this operation is performed, the water is generally drawn off too speedily, by which too much of the vital heat is wasted, and hence the patient sometimes swoons, and ill success ensues. Some advise this operation as soon as there is water enough to make it safe and practicable, without waiting for a distension. Dr. Fothergill advises to this purpose: See *Lon. Med. Obs. and Inq.* Vol. iv. p. 144. And though Dr. Hunter is somewhat doubtful in this respect, his objections rather plead for than against it. Dr. Baker also urges an early operation.

On the subject of tapping early for the dropsy, we have mentioned Dr. Fothergill as an advocate for it, but as the reader may probably wish to be acquainted with his reasons, let the Doctor speak for himself. "I have endeavoured," says he, "to prevail upon such patients labouring under this disease as have requested my assistance, to submit to it as early as possible, after I found the quantity of water was such as could not be removed by medicines, without doing great violence to the constitution. There are several persons now living, whom I prevailed on early to submit to this operation. When I found the usual diuretics had no effect, and the more active purgatives did as much prejudice by weakening the whole frame, bringing on thirst, loss of appetite, debility, and fever, as they did service by the evacuation they produced; I desisted from medicine; allowed them to drink as much as thirst required; and, when the fluctuation was so evident as to render the operation safe, it was performed. In one case, one operation alone succeeded: for, by diuretics and corroborants, proper diet, and suitable exercise, the urine passed the kidneys freely, and the patient recovered perfectly. This was an evident *ascites*, and came on soon after a lying-in; apparently from the power of absorption being weakened beyond a speedy recovery, and the exhalant vessels

“vessels being relaxed immoderately; the balance was
 “destroyed, and a vast quantity of water was collected
 “in a shorter time than I ever saw. All the viscera
 “seemed to be found, and none of the usual causes of
 “dropsies from intemperance had preceded. Had we
 “persevered with strong purgatives or diuretics much
 “longer, the tone of the absorbent vessels would per-
 “haps have been so far weakened, as to have rendered
 “tapping, or any other means ineffectual.”

The Doctor then adds, “Another case was, in a
 “single woman of about thirty-five years of age; the
 “disease succeeded a tedious lingering fever, attended
 “with great thirst; and very large quantities of thin
 “liquors had been poured down, without discretion.
 “Apprehending the distemper proceeded from the
 “diminished power of the absorbent vessels, the redun-
 “dancy of fluid, the general debility of the whole
 “frame; very few medicines, except cordials, were
 “given, till she was full enough to be tapped. This
 “was happily performed; but she soon filled again.
 “The operation was repeated. The medicines ordered
 “for her now began to take effect. The urine was
 “increased, her strength returned, and she left the
 “town perfectly recovered.” *Dr. Fothergill's Works*,
 p. 364.

To cure a dropsy without tapping is a common
 promise among pretenders; but so violent are their
 remedies, and so rash their mode of administering them,
 that should they even remove the dropsy, so much
 weakness will be produced, that it is probable, the
 patient will not long survive.

The following observations from Parkinson's Medical
 Admonitions will, not unaptly, accompany this article:

“I very lately visited a case of confirmed dropsy of
 “the belly, in which the patient was persuaded to take
 “a strong infusion of the fox-glove; much stronger than
 “any physician would have dared to prescribe. The
 “dropsy was removed, for a time; but the disease of
 “the *viscus*, from which the dropsy proceeded, still
 “remaining, the water again collected; and incessant
 “vomiting

"vomitings and purgings, produced by the fox-glove, added considerably to his sufferings, and at length destroyed him." *Med. Adm.* 439.

The water having been drawn off, let the patient be put on a course of strengthening medicines; as the Peruvian bark, the elixir of vitriol, the filings of iron, some of the warm aromatics, and a due proportion of rhubarb, &c. infused in wine. Enjoin brisk exercise and frictions on the belly, with such a course of diet as shall be light and nourishing.

The ascites happening to a pregnant woman, palliatives only are to be used till after her delivery, unless danger of suffocation from the excessive distension demands it.

THE JAUNDICE.

JAUNDICE is derived from the French, *jaunisse*, yellowness, of *jaune*, yellow, in medicine, a disease consisting in a suffusion of the bile, and a rejection thereof to the surface of the body, whereby the whole exterior habit is discoloured. Dr. Macbarg is of opinion, that the bile returns into the circulation in this disorder, by the course of the lymphatics. There is also a species of this disease called the Black Jaundice.

CAUSES. The immediate cause of the jaundice is an obstruction of the bile in its passage into the duodenum. The remote or occasional causes are, the bites of poisonous animals, as the viper, mad dog, &c. a coarse and thick diet; obstruction or repression of the necessary discharges. It is also brought on by a suppression of intermittent fevers, particularly of quartans, by astringents, and by violent passions of the mind, as grief, anger, &c. Violent vomits or purges will sometimes also bring on this disease, as will a sudden draught of cold water when the body is very hot. It is also a symptom in several kinds of fever, and pregnant women are very subject to it.

SYMPTOMS,

SYMPTOMS. The jaundice first shews itself by a listlessness, and want of appetite; the patient becomes dull, oppressed, and generally costive. These symptoms have continued but a very short time, when a yellow colour begins to diffuse itself over the white of the eyes, and the nails of the fingers; the urine becomes high-coloured, with the yellowish sediment; the stools are whitish or grey. The patient's skin is dry, and he generally feels a kind of itching or pricking pain over the whole body.

Sometimes the patient has a continual propensity to sleep, but in others there is too great watchfulness; and sometimes the pain is so great, that though the patient be sleepy he cannot compose himself to rest. The pain comes by fits; and all mothers who have had the jaundice, agree, that they are more violent than labour pains. As the disease advances, the yellow colour becomes more and more deep; and even the internal membranes of the viscera, the bones, and the brain itself become tinged, as hath been shewn from dissections, where the bones have been found tinged sometimes for years after the jaundice has been cured.

In like manner all the secretions are affected with the yellow colour of the bile, which in this disease is diffused throughout the whole mass of fluids. The saliva, or spittle, becomes yellow and bitter: the urine excessively high coloured, in such a manner as to appear almost black; nay, the blood itself is sometimes said to appear of a yellow colour when drawn from a vein; yet Dr. Heberden says, that he never saw the milk altered in its colour, even in cases of very deep jaundice. In process of time, the blood begins to acquire a tendency to dissolution and putrefaction, which is known by the patient's colour changing from a deep yellow to a black or dark yellow. Hemorrhages ensue from various parts of the body, and the patients frequently die of an apoplexy; though in some the disease degenerates into an incurable dropsy; and there have not been wanting instances of some who have died of the dropsy after the jaundice itself had been totally removed.

If the patient be young, and the disease complicated with no other malady, it is seldom dangerous; but if, in old people, it continues long, returns frequently, or is complicated with others, it generally proves fatal either in itself, or in its consequences.

REGIMEN. The diet should be cool, light, and diluting, consisting chiefly of ripe fruits and mild vegetables; veal or chicken broth is also very proper. The patient's drink should consist of butter-milk, whey sweetened with honey, or decoctions of cool opening vegetables; or marshmallow roots, with liquorice, &c.

Exercise is strongly recommended in this disease; and of all kinds of exercise, that of riding on horse-back is most to be depended upon: it operates in the same manner with vomits, namely by the shake it gives to the viscera. Walking, running, and even jumping should be practised, if the patient can bear the pain, and there are no symptoms of inflammation. A long journey has often cured a person labouring under this disease, when all other medicines have been tried in vain. Amusements of the cheering kind exhilarate the spirits, promote circulation, and have a salutary effect.

CURE. Boerhaave observes, that the diseases of the liver are much worse to cure, than those in any other part of the body; because of the difficulty there is in getting at the part affected, and the tedious and round-about passage the blood has to it. The principal method of cure now attempted in the jaundice is to expel the calculus into the intestines; for which vomits and exercise are very efficacious, as they powerfully shake all the viscera, and thus tend to dislodge any obstructing matter that may be contained in them. But if there be a tendency to inflammation, vomits must not be exhibited till bleeding has been premised.

If the patient is young, of a sanguine habit, and complains of pain in the right side, about the region of the liver, bleeding will be necessary: a vomit must then be administered, and, if the disease proves obstinate, it may be repeated once or twice: half a dram of ipecacuanha

cuanha in powder will be a sufficient dose for an adult; which may be worked off with camomile-tea or lukewarm water. No medicines are more beneficial in the jaundice than vomits, especially where it is not attended with inflammation. Cathartics or purges may also be of service, but they must not be of too drastic, or powerful a nature, or they may produce incurable obstructions, by bringing forward stones that are too large to pass. Anodynes, the warm bath, and saponaceous, or soapy medicines, are serviceable by their relaxing quality.

Soap has been supposed to do service as a solvent; but this is now found to be a mistake, as it acts in no other way than as a relaxant.

Fomenting the parts about the region of the stomach and liver, and rubbing them with a warm hand, or flesh-brush, are found beneficial; and the patient may derive great benefit from sitting frequently, and for a considerable length of time, up to the breast in a vessel of warm water.

Lice, millepedes, &c. have been recommended for the cure of the jaundice; but these confided in, to the neglect of more valuable medicines, do more injury than good: and they seldom are persisted in long enough, because they are expected to operate as charms.

Considerable benefit has been received in a very obstinate jaundice, from a decoction of hemp-seed: four ounces of the seed may be boiled in two quarts of ale, and sweetened with coarse sugar. The dose is half a pint every morning, which may be continued for eight or nine days. The waters of Bath and Harrogate are very serviceable in this disease: the patient must not only drink of these waters, but he must bathe in them.

When other means of relief fail, as in cases of schirrus, the symptoms can only be palliated, in order to preserve the patient's life as long as possible. This is best accomplished by diuretics; for thus a great

quantity of bilious matter is evacuated, and the system is freed from the bad consequences which ensue on its stagnation in the habit.

In general, as the jaundice is a disease very subject to return upon persons who have once had it, gentle evacuations should be used at times to keep it off; and a medicated drink, with rhubarb, fenna, and the like, should be taken for some days.

Medical writers distinguish the jaundice into idiopathic, and symptomatic. The idiopathic jaundice is that which arises of itself, and has no dependence upon any other disease; the symptomatic is that which arises in the course of fevers, and other distempers, in which the gall is affected.

PART VIII.

OF THE SCURVY, KING'S EVIL, AND ITCH.

THE SCURVY.

THE term *scurvy* has been indiscriminately applied, even by physicians, to almost all the different kinds of cutaneous foulness, or foulness of the skin; owing to some writers of the last century, who comprehended such a variety of symptoms under this denomination, that there are few chronic diseases which may not be so called, according to their scheme: but the disease here meant is the true putrid scurvy; so often fatal to seamen, and to people pent up in garrisons without sufficient supplies of sound animal food, and fresh vegetables: or which is sometimes known to be endemic, or local, in certain countries, where the nature of the soil, the general state of the atmosphere, and the common course of diet, all combine in producing that singular species of corruption in the mass of blood, which constitutes this disease.

This

This disease has been divided into several species, particularly into the land and sea-scurvy: the land-scurvy, however, is seldom attended with those high putrid symptoms which appear in patients who have been long at sea, and which may perhaps be rather owing to confined air, want of exercise, and the unwholesome food of sailors in a long voyage, than to any specific difference in the disease.

CAUSES. The immediate cause is the same as that which produces the putrid fever, that is putrescence; the more remote causes are, a moist atmosphere, and more especially if cold be joined to this moisture; the long use of salted or smoke-dried provisions, perhaps not well cured, without a due proportion of mild mucilaginous vegetables, sufficient to correct the pernicious tendency of the salt; neglect of cleanliness, and want of sufficient cloathing; too long cessation from bodily exercise, whether it be from constraint, or from a lazy slothful disposition; grief, fear, and other depressing passions; want of wholesome drink, either of pure water or fermented liquors; the suppression of customary evacuations, &c.

SYMPTOMS. The first indication of this disease is generally a change of colour in the face, from the natural and healthy look to a pale and bloated complexion, with a listlessness, and aversion to every sort of exercise; the gums soon after become spongy, itchy, and swell, and are apt to bleed on the lightest touch; the breath grows offensive; and the gums swelling daily more and more, turn livid, and at length become extremely fungous and putrid, as being continually in contact with the external air; which in every case favours the putrefaction of substances disposed to run into that state, and is indeed absolutely requisite for the production of actual rottenness.

It is remarkable in this disease, that, notwithstanding the various and immense load of distress under which the patients labour, there is no sickness at the stomach, the appetite keeps up, and the senses remain entire almost to the very last; when lying at rest, they make no

complaints, and feel little distress or pain; but the moment they attempt to rise, or stir themselves, then the breathing becomes difficult, with a kind of straitness or catching, and great oppression, and sometimes they have been known to fall into a syncope, or fainting fit. This catching of breath upon motion, with the loss of strength, dejection of spirit, and rotten gums, are held as the essential or distinguishing symptoms of the disease.

The skin is generally dry, except in the very last stage, when the patients become exceedingly subject to faintings, and then it grows clammy and moist, and, when examined, is found spread over with spots, not rising above the surface, of a reddish, bluish, livid, or purple colour, with a sort of yellow rim round them. At first these spots are usually small, but in time they increase to large blotches. The legs and thighs are the places where they are mostly seen; more rarely on the head and face. Many have a swelling of the legs, which is harder, and retains the impression of the finger longer than the common dropical swellings.

The slightest wounds and bruises, in scorbutic habits, degenerate into foul and obstinate ulcers; and the appearance of these ulcers is so singular and uniform, that they are easily distinguished from all others. Scorbutic ulcers afford no good digestion, but a thin and fetid ichor, or watery humour, mixed with blood, which at length has the appearance of a coagulated gore lying caked on the surface of the sore, not to be separated or wiped off without some difficulty. The flesh under these sloughs feels to the probe soft and spongy, and is very putrid.

The edges are generally of a livid colour, and puffed up with excrescences of proud flesh arising from below the skin. As the violence of the disease increases, the ulcers shoot out a bloody fungus, which often rises in a night's time to a monstrous size; and though destroyed by cauteries, or cut away with a knife, is found at next dressing as large as ever. It is a long time, however, before these ulcers, bad as they are, come to affect the

bones with rottenness. These appearances will always serve to assure us that an ulcer is scorbutic; and should put us on our guard with respect to the giving mercurials, which are the most pernicious things that can be given in these cases.

The pulse is variable, but most commonly slower and more feeble than in the time of perfect health. A stiffness in the tendons, and a weakness in the joints of the knees, appear early in the disease; but as it grows more inveterate, the patients generally lose the use of their limbs altogether. Some have their legs very much swelled, and covered over with livid spots; others have had tumours there; some, though without swelling, have the calves of the legs, and the flesh of the thighs, quite indurated, or hardened.

As persons far gone in the scurvy are apt to faint, and even expire, on being moved and brought out into the fresh air, the utmost care and circumspection are requisite when it is necessary to stir or remove them.

Scorbutic patients are at all times, but more especially as the disease advances, extremely subject to profuse bleedings from different parts of the body; as from the nose, gums, intestines, lungs, urinary passages, &c. and from their ulcers, which generally bleed plentifully if the fungus be cut away. It is not easy to conceive a more dismal and diversified scene of misery than what is beheld in the third and last stage of this distemper; it being then that the more extraordinary symptoms appear, such as the bursting out of old wounds, and the dissolution of old fractures that have been long united. At length a wasting or hectic fever comes on, and the miserable patient is carried off by a dysentery, a diarrhæa, a dropsy, the palsy, fainting fits, or a mortification of some of the bowels.

CURE. With regard to the cure, it is much easier to prevent the scurvy than to remove it; but when the disease has actually taken place, our whole endeavour must be to restore the blood to its original state of soundness: and happily, such is the nature of this disease, that if a sufficiency of new matter, of the truly mild
nutritious

nutritious sort, can be thrown into the circulation while the fleshy fibres retain any tolerable degree of firmness, the patient will recover; and that in a surprisngly short space of time, provided a pure air, comfortable lodgings, sufficient cloathing, cleanliness, and exercise lend their necessary aid.

To get rid of the scurvy, the patient must pursue an opposite plan to that which brought it on. If he has been accustomed to breathe a cold, damp, or confined air, he should be removed to a situation where a dry, open, and moderately warm air may be inhaled. If the disease is supposed to proceed from a sedentary life, depressing passions, as grief, fear, melancholy, &c. cheerful company, amusements, diversions, and plenty of exercise in the open air should be persisted in.

When the long and frequent use of salted provisions brings on the scurvy, the proper medicine is a diet consisting chiefly of fresh vegetables; such as abound in volatile salt; as scurvy-grass, cresses, brook-lime, and the like; and those which are of a cooling nature, as sorrel, endive, lettuce, purslain, and others of this kind. And it will often be beneficial to eat all these, or some of each sort, promiscuously together. But the greatest service may be expected from subacid fruits, as lemons, oranges, apples, limes, tamarinds, &c. In this case, all the patient's food and drink should be sharpened with cream of tartar, elixir of vitriol, vinegar, or spirit of salt.

Many very extraordinary effects have been produced in the land-scurvy by a milk diet; nothing is so proper as that fluid for restoring a decayed constitution, and removing that particular acrimony of the humours, which seem to constitute the very essence of the scurvy and many other diseases.

Sallad of all kinds is good in the scurvy. A decoction of the tops of spruce fir is also very proper. Sound cyder, perry, or spruce beer is found beneficial. Tar-water may be used for the same purpose; or decoctions of any of the wild musilaginous vegetables; as sarsaparilla, marsh-mallow-roots, &c. Infusions of the
bitter

bitter plants, as ground ivy, marsh-trefoil, the lesser centaury, &c. have a good effect.

All this, however, that has been laid down as necessary towards the cure, supposes the patients to be in situations where they can be plentifully furnished with all the requisites; but unhappily these things are not to be procured at sea, and are often deficient in garrisons: therefore, in order that a remedy for the scurvy might not be wanting, Dr. Macbride, in 1762, first conceived the notion, that *infusion of malt*, commonly called *wort*, might be substituted for the common antiscorbutics, and it was accordingly tried.

Many narratives of the remarkable success of this plan were circulated, and further particulars were communicated to the public by a pamphlet, published in 1767, under the title of an "An Historical Account of a new Method of treating the Scurvy at Sea." Since that time, a considerable number of letters and medical journals have been printed, particularly by the surgeons of his majesty's ships that have been employed of late years for making discoveries in the southern hemisphere. During Captain Cook's last voyage, the most remarkable in respect of the healthiness of the crew that ever was performed, the wort is acknowledged to have been of singular use.

In a letter which this celebrated circumnavigator wrote to Sir John Pringle, he gives an account of the methods pursued for preserving the health of his people; and which were productive of such happy effects, that he performed, "a voyage of three years and eighteen days, through all the climates from 52 deg. north to 71 deg. south, with a loss of one man only by disease, and who died of a complicated and lingering illness, without any mixture of scurvy. Two others were unfortunately drowned, and one killed by a fall; so that out of the whole number (118) which set out from England, he lost only four."—With respect to the *wort*, he thus expresses himself:

"We had on board a large quantity of *malt*, of which was made *sweet-wort*, and given (not only to those men
" who

“ who had manifest symptoms of the scurvy, but to
 “ such also as were, from circumstances, judged to be
 “ most liable to that disorder) from one or two to three
 “ pints in the day to each man, or in such proportion
 “ as the surgeon thought necessary, which sometimes
 “ amounted to three quarts in the twenty-four hours.
 “ This is, without doubt, one of the best antiscorbutic
 “ sea medicines yet found out; and, if given in time,
 “ will, with proper attention to other things, I am per-
 “ suaded, prevent the scurvy from making any great
 “ progress for a considerable time: but I am not alto-
 “ gether of opinion that it will cure it, in an advanced
 “ state, at sea.”

On this last point, however, the captain and his surgeon differ; for this gentleman positively asserts, and his journal confirms it, that the infusion of malt did effect a cure in a *confirmed case*, and at sea.

The malt, being thoroughly dried, and packed up in small casks, is carried to sea, where it will keep sound, in every variety of climate, for at least two years: when wanted for use, it is to be ground in a hand-mill, and the infusion prepared from day to day by pouring three measures of boiling water on one of the ground malt; the mixture being well mashed, is left to infuse for ten or twelve hours, and the clear infusion then strained off. The patients are to drink it in such quantities as may be deemed necessary, from one to three quarts in the course of twenty-four hours: a panado is also necessary to be made of it, by adding biscuit, and currants and raisins; and this palatable mess is used by way of solid food. This course of diet, like that of the recent vegetables, generally keeps the bowels sufficiently open; but in cases where costiveness nevertheless prevails, gentle laxatives must be interposed from time to time, together with diaphoretics, or medicines to promote perspiration.

Capt. Cook was also provided with a large stock of four krout, and a liberal supply of portable soup: and in addition to all these advantages, he was remarkably attentive to all the circumstances respecting cleanliness, exercise,

exercise, sufficient cloathing, provision of pure water, and purification of the air in the closer parts of the ship.

Harrowgate-water is an excellent medicine in the land-scurvy: many persons who have been reduced to the most deplorable condition by this disease, have been greatly relieved by drinking the sulphur-water, and bathing in it.

A slight degree may be carried off by frequently sucking a little of the juice of a bitter orange, or a lemon. If the disease affects the gums only, this practice, if continued for some time, will generally carry it off. The bitter orange is, however, greatly preferable to lemon.

A decoction of the roots of water-dock is of essential service in scorbutic complaints of very long standing. Boil a pound of the fresh root in six pints of water, till about a third part of it is consumed. The dose is from half a pint to a pint of the decoction every day, more or less as the patient's stomach will bear it. This medicine, to effect a cure, generally requires long perseverance.

THE SCROPHULA, OR KING'S EVIL.

THE Latins call this disorder *struma*, and *scrophula*, from *scrofa*, a sow, because this disorder is observed in swine. It is called the king's evil, because Edward the Confessor, and other succeeding kings, both of England and France, have pretended to cure it by the touch.

Dr. Temple says, "This is an hereditary disease, and its first appearance is generally between the third and seventh year, and at any period between these and the age of puberty, after which it seldom makes its first attack." Others seem to think this disease hereditary, yet a generation, or perhaps two, may pass without its being manifested in them; but in the next it again revives.

CAUSES. A variety of causes have been mentioned as tending to produce scrophula, as crude indigestible food; bad water; living in damp low situations; its being an hereditary disease, and in some countries endemic, or local; it may be occasioned by a scrophulous nurse. Children born of sickly parents, whose constitutions have been injured by venereal or other diseases, are often affected with the scrophula. Diseases which weaken the habit, or vitiate the humours, as the small-pox, measles, &c. The want of exercise, too much heat or cold; neglect of cleanliness.

But whatever may, in different circumstances, be the exciting, or predisposing causes of the scrophula, the disease itself either depends upon, or is at least much connected with, a debility or weakness of the constitution in general, and probably of the lymphatic system in particular; the complaint always shewing itself by some affections of the latter. And that debility has at least a considerable influence on its production is probable, not only from the manifest nature of some of the causes said to be productive of scrophula, but likewise from such remedies as are found most serviceable in the cure, which are all of a tonic invigorating nature.

This is one of those diseases which may be removed by proper regimen, but seldom yields to medicine. It is not often, however, that it proves mortal in a short time, unless it attacks the internal parts, such as the lungs, where it frequently produces tubercles that bring on a fatal consumption. When it attacks the joints it often produces ulcers, which continue for a long time, and gradually waste the patient; while, in the mean time, the bones become foul and corroded, and death ensues after a scene of misery.

The inhabitants of cold, damp, marshy countries are most liable to the scrophula.

SYMPTOMS. This disease shews itself by hard knots or tumours, which arise by degrees in the glands of the neck, under the chin, arm-pits, and different parts of the body; but most commonly in the neck, and behind the

the ears. These gradually increase in number and size, till they form one large hard tumour. This often continues for a long time without breaking; and when it does break, discharges only a thin watery humour. In process of time, the cellular substance, ligaments of the joints, and even the bones themselves, are affected. In scrophula the swellings are much more moveable than those of the schirrous kind; they are generally softer, and seldom attended with much pain: they are tedious in coming to suppuration; are very apt to disappear suddenly, and again to rise in some other part of the body.

We may also mention, as characteristic circumstances of this disease, a remarkable softness of the skin, a kind of fulness of the face, generally with large eyes; a rosy delicate complexion; and thick upper-lip and nostrils. Dr. Buchan says, "There is not a more general symptom of the scrophula than a swelling of the upper-lip and nose."

The scrophula frequently attacks the joints; but in this case the symptoms are very different from those just described, and attended with much more serious consequences: they swell, and are affected with excruciating deep-seated pain, which is so much increased upon the slightest motion, as totally to prevent it. The swelling increases, and with it the pain, while the muscles of the limb are greatly wasted: in time matter is formed, and is discharged at small openings made by the bursting of the skin; it is peculiarly acrimonious, eroding the ligaments and cartilages, and producing a particular species of caries, or rottenness: in this state a hectic fever comes on, in consequence of the absorbed matter, which often proves fatal.

It is remarkable that the scrophula, at a certain period of life, often cures itself, a circumstance which tends, in some degree, to countenance the ridiculous idea of its being cured by a touch.

REGIMEN. The diet should be generous and nourishing, but at the same time light and easy of digestion.

Open, dry air, and not too cold, with as much exercise as the patient can bear, are highly serviceable in this disease.

CURE. A great variety of alteratives are mentioned in different writers, each of which, in particular instances, have been of use, yet none of them are to be depended on in any case. When the blood is poor, and fibres lax, the bark is the best known medicine; and though in some few instances it cannot be prescribed, yet in most it is manifestly useful. But though the bark may not succeed in all cases, there are few in which a trial can be attended with much detriment.

Dr. Fothergill observes that he never knew it avail much where the bones are affected, nor where the scrophulous humour is situated so as to be attended with much pain, as in the joints, or under the membranous coverings of the muscles; in those cases it is observed that the bark rather increases the fever; but as opium, when given as an alterative, hath been very useful in scrophulous disorders, so its accompaniment with the bark may be followed with advantages not be obtained by either separately.

Dr. Temple says, "Sea-bathing is among the most efficacious remedies yet known for scrophula." And in indolent swellings of the glands from viscid humours, sea-water has been also strongly recommended by Dr. Ruffel.

A course of bathing in salt-water, and drinking it in such quantities as to keep the body gently open, has been known to cure a scrophula, after many other medicines had been administered in vain. Where salt-water cannot be procured, let the patient be bathed in fresh-water, and his body kept open by small quantities of salt and water, or some other gentle purgative.

Some recommended cold bathing and drinking the salt-water in summer, and the bark in winter. To an adult half a dram of the bark in powder may be given, in a glass of red wine, four or five times a-day.

Various are the modes in which the bark is administered,

tered, but Dr. Fothergill makes use of a decoction, with the addition of some aromatic ingredients and a small quantity of liquorice-root, as a form in which a sufficient quantity may be given without exciting disgust. The powder soon becomes disagreeable to very young patients, and the extract seems not so much to be depended upon as may have been imagined.

A decoction made in the following manner is well calculated for children; and such as cannot take it in substance. Boil an ounce of Peruvian bark, and a dram of winter's bark, both grossly powdered, in a quart of water till it becomes a pint: towards the end, half an ounce of sliced liquorice-root, and a few raisins or gum arabic may be added; by which process the medicine is not only improved in efficacy, but at the same time rendered less disagreeable. Strain this liquor, and give the patient, according to his age, three or four table-spoonfuls about three times a-day.

Narcotic plants, which abound with a volatile salt, are powerful in resolving the scrophulous humours, and among those the hemlock has been said to be eminently useful, when applied in the form of a cataplasm, and also when the extract hath been taken inwardly; though the internal use is more proper in adults than in infancy and youth. But a certain eminent physician, now living, says, *this medicine has failed in its boasted efficacy, and is getting into disuse.*

The Moffat and Harrowgate-waters are proper medicines in the scrophula. They should be drank in moderate quantities, so as to keep the body gently open, and they should be continued for a considerable time.

External applications avail but little. Before the tumour breaks, nothing should be applied to it, except a piece of flannel, or something to keep it warm. When it breaks, the sore may be dressed with some digestive ointment, as yellow basilicon with about an eighth-part of its weight of red precipitate of mercury. Dress the sore with this twice a-day, and if it be very fungous, and does not digest well, more of the precipitate may be added.

Poultices

Poultices of sorrel have been said to heal the ulcers and resolve the tumours.

To encourage patients to persevere in the use of any medicines which may possibly mitigate this disease; let them remember, that if they can by any means be kept alive till they arrive at the age of puberty, they have a chance of getting well; but if they do not then recover, the chance is much against them.

THE ITCH.

MANY are the appearances on the skin, and various are the disorders that are accompanied with, or manifested by an itching therein; but the itch is a skin-disease, and has for its cause a very small kind of animalcule, of a whitish colour, and shaped like a tortoise, each having six feet, and a sharp head, with two small horns on its point. They are very hard, and consequently not easily destroyed by rubbing them.

Though this disease is usually communicated by infection, yet it seldom prevails where due regard is paid to cleanliness, fresh air, and wholesome diet.

This disorder appears in little watery pimples about the wrists, between the fingers, and then on the arms, legs, and thighs, but never affects the head; it is attended with extreme itching.

In the evening, when the patient comes near the fire, or begins to grow warm in bed, the itching is extremely troublesome: in some patients there are blotches here and there, in others there is a scurfy or scaly kind of eruption; the last of which is called the dry itch. The moist kind most frequently happens to children, and the drier sort to adults. The humour in the moist sort is sanious and corrupt, and an inflammation is observable about the basis of each eruption: but in the dry kind, the pustules are of a small size, and are filled with a thin sharp humour; which, by irritating the highly-tender fibres under the cuticle, or skin, occasion both heat and itching.

If

If the itch is neglected, or improperly treated, it may vitiate the whole mass of humours; or if it is suddenly driven in, without proper evacuations, it may occasion fevers, inflammations, &c.

Dr. Buchan says, the best medicine yet known for the itch is sulphur, and he recommends it to be used both externally and internally: the parts most affected are to be rubbed with an ointment made of the flowers of sulphur, two ounces; crude sal ammoniac, finely powdered, two drams; hogs lard, or butter, four ounces. A scruple of the essence of lemon may be added, to take away the offensive smell. About the bulk of a nutmeg of this may be rubbed upon the extremities about bed-time, twice or thrice a-week. It is seldom necessary to rub the whole body; but if it is found necessary, it should not be done at once, but a part at a time, it being dangerous to stop too many pores at once. The quantity just mentioned will generally be sufficiently for the cure of one person.

If the patient is of a full habit, he should bleed and take a purge or two before he begins to use the ointment, and the body should be kept gently open during the whole time. The same clothes, the linen excepted, should be worn all the time of using the ointment, and such as are cast off when the disease is cured, must not be used again till they have been fumigated with brimstone and thoroughly cleaned, lest a fresh infection should be communicated.

Brimstone, used as above directed, has hardly ever been known to fail of effecting a cure; but if it be only used once or twice, and cleanliness not attended to, the disorder may possibly return; but if any of the symptoms should again appear, the medicine may be repeated. It is safer and more efficacious when persisted in for a considerable time, than when a large quantity is applied at once. Persons who have an aversion to the smell of brimstone, may use, in its stead, the powder of white hellebore-root, made up into an ointment, in the same manner, which seldom fails of a cure.

Many

Many other applications have been used, and still are preferred by some.

Dr. Turner recommends a solution of the salt of tartar, in the proportion of a dram to an ounce of water; of this a tea-spoonful is to be taken two or three times a-day in any small drink, the body to be washed at the same time with a weak ley.

People, should be extremely cautious lest they take other eruptions for the itch, as the stoppage of these may be attended with fatal consequences.

Much mischief is done by using mercurial ointment for curing the itch, and killing vermin, though it is not required for either: the itch may be always more certainly cured by sulphur; and the vermin will never be found where due regard is paid to cleanliness.

PART IX.

OF ASTHMA, APOPLEXY, PALSY, EPILEPSY, St. VITUS'S DANCE, FAINTING FITS, DIGESTION, HYPOCHONDRIAC, AFFECTIONS, HYSTERIC, &c.

THE ASTHMA.

GALEN informs us that the Greeks gave this name to a quick respiration, or breathing, such as happens to people who run. The word is now applied to a disorder, the chief symptom of which is a difficult or short breathing.

The asthma is a disorder of the lungs which seldom admits of a cure. It is a chronic disease, which may continue to give very great distress, at intervals, for a considerable number of years. Sir John Floyer, when he wrote his celebrated treatise, had laboured under repeated paroxysms for thirty years.

The common distinction is into *moist* and *dry*, or *humoural* and *nervous*; the former is accompanied with an expectoration

expectoration or spitting of mucus, or matter; in the latter the patient seldom spits, except sometimes a little tough phlegm by the mere force of coughing.

CAUSES. It may proceed from cold, moist impure air. When symptomatical, any distemper that affects the breast or lungs may be the cause. Translated gout or rheumatism, wounds of the diaphragm, and suppressed evacuations may occasion it: violent exercise, or excess of the passions of the mind, as anger, sudden fear, surprise; drinking too much strong liquors. A diminished perspiration is a common cause in England, from the neglect of changing cloaths with the seasons; so is the striking in of eruptions, as the small-pox, measles, &c. or the fumes of metals or minerals, taken into the lungs. Profuse indulgence in the use of tea, and warm watery liquids of all kinds are exciting causes of asthma.

SYMPTOMS. The asthma is often hereditary, seldom appears in early life, and chiefly attacks males. The paroxysms begin with a sense of straightness in the chest, or tightness, accompanied by a quick laborious breathing, which is generally performed with a kind of wheezing noise. Sometimes the patient is obliged to lie in an horizontal posture, and when seized in that position is obliged immediately to become erect. A fit of the asthma generally happens after a person has been exposed to cold easterly winds, or has been abroad in wet, foggy, or damp weather, or has continued for some time in damp places under ground.

Asthmatic persons have generally some warning of the attack, from a languor, loss of appetite, oppression, and swelling of the stomach, from flatulence, or wind, which precede the fit, but it is usually in the middle of the night that the violent difficulty of the breathing comes on.

The duration of the paroxysm is uncertain, as it will sometimes terminate in three or four hours, and at other times it shall continue for as many days; nay, it has been known to last three weeks without intermission. While it continues, the patient is in very great distress,

not being able to lie in bed, nor scarcely to speak or spit, so great is the difficulty of breathing; and yet, notwithstanding all this apparent interruption to the free passage of the blood through the lungs, an inflammation here seldom or never supervenes a fit of the asthma. As the paroxysm wears off, and the breathing becomes free, there is more or less of a spitting of mucus, or matter; and the urine, from being pale and limpid, becomes high-coloured.

Changes of weather are usually felt very sensibly by asthmatic people, who in general cannot live with tolerable ease in the atmosphere of large cities.

REGIMEN. A light diet of meats that are easy of digestion, and not windy, is requisite for asthmatic people. Boiled meats are to be preferred to roasted. Puddings, light broths, and ripe fruits are proper. Strong liquors of all kinds, especially of malt, are hurtful: little or no supper should be eaten. The patient should never suffer himself to be long coſtive. His clothing should be warm. And as all disorders of the breast are much relieved by keeping the feet warm, and promoting the perspiration, a flannel shirt or waist-coat will be found highly beneficial.

With respect to the air which these patients breathe, it should be observed, that some are easy only in a dry serene air in the country; and others are so only in the moist vapid air of great towns: with one a light, and with another a heavy atmosphere, does the best.

The air near a large populous town is often better than at a greater distance, provided the patient be so far removed as not to be affected with the smoke. Asthmatic people cannot endure the close heavy air of a large town, or the sharp keen atmosphere of a bleak hilly country. The medium is therefore to be chosen.

Exercise is of great importance in the asthma, and should be taken daily, on foot, horseback, or in a carriage.

CURE. In order to obtain relief in the fit, bleeding in the beginning will be proper, unless extreme weakness or old age should forbid, and repeat it according to the

the degrees of strength and fullness; but when the disease has continued long, bleeding is inefficacious, and therefore improper. A purging clyster, with a solution of assafoetida, must be immediately injected; and if the violence of the symptoms should not speedily abate, it will be proper to blister the nape of the neck. The patient's feet and legs should be immersed in warm water, and afterwards rubbed with a warm hand or a dry cloth.

A very strong infusion of roasted coffee has been found to give ease in a fit of the asthma. Sir John Pringle says, "It is the best abater of the paroxysms of the periodic asthma that he has ever seen." The coffee ought to be of the best moco, newly burnt, and made very strong immediately after grinding it. He commonly ordered an ounce for one dish, which is to be repeated fresh, after the interval of a quarter or half an hour; and which is to be taken without milk or sugar. The medicine, in general, is mentioned by Musgrave; but he first heard of it from a physician in Litchfield, who had been informed by the old people of that place, that Sir John Floyer, during the latter part of his life, kept free from, or at least lived easy under his asthma, from the use of strong coffee. This discovery, it seems, he made after the publication of his book upon that disease. Dr. Percival says, he has frequently directed coffee in the asthma, with great success. Dr. Percival also recommends its employment medicinally.

The acid of vinegar, distilled vinegar, or, if that cannot be had, common vinegar, in a dose of two table-spoonfuls, with an equal quantity of cold water, is a remedy from which relief may be frequently obtained in the paroxysm. Dr. Bree says, that, "In asthma proceeding from the irritation of mucus, vinegar is the most useful medicine, in the paroxysm, which I have tried."

If there is a violent spasm about the breast or stomach, warm fomentations, or bladders filled with warm water may be applied to the part affected, and warm cata-

plasma to the soles of the feet. Let the patient drink freely of diluting liquors, and take a tea-spoonful of the tincture of castor, and of saffron mixed together in a cup of valerian-tea, twice or three times a-day.

In the intervals of the fits, persons subject to the asthma, especially the *moist* kind, should take vomits from time to time. An infusion of tobacco is a vomit that has been found very serviceable in some asthmatic cases; and smoking or chewing the same has been known to prevent the frequency and severity of the paroxysms. To this assertion Dr. Temple agrees. He says, that, "Smoking tobacco has sometimes entirely cured the complaint, and it seems a powerful remedy."

This point is, however, much controverted: "The smoke of tobacco," says Parkinson, "is, in most cases, *offensive to the asthmatic*; and even when the habit of inhaling the fume is pursued, and absurdly thought to be a remedy for the disease, by those who mistake the great excretion of saliva for a necessary evacuation, the patient strengthens the predisposition to the disease. It is affirmed that smokers are asthmatic; and Diemerbroeck found their lungs dark-coloured, approaching to black, and ulcerated. Sir J. Floyer mentions a patient, who smoked to cure a pain in the stomach, and by this means *acquired the asthma*. *Med. Adm.* 340."

In the moist asthma, those things which promote spitting ought to be used, as the syrup of squills, gum ammoniac, &c. A common spoonful of the syrup of oxymel of squills, mixed with as much cinnamon-water, may be taken three or four times a-day; and four or five pills, made of equal parts of assafoetida and gum ammoniac, at bed-time.

The dry or nervous asthma, during the extreme violence of the fit, is best relieved by opiates; and sometimes very large doses are required. But in order to obtain permanent relief, nothing is found to answer better than the ipecacuanha root, in small doses. Three, five, eight, or ten grains, according to the strength and constitution

constitution of the patient, given every other day, have been productive of the happiest effects. Asses' milk, or cows' milk, drank warm in a morning, may have a good effect in a nervous asthma.

In every species of asthma setons and issues are highly beneficial; they may be either in the back or side, and should not be permitted to dry up. It is admitted indeed that, not only in the asthma, but in most chronic diseases, issues are extremely proper; if they do not always effect a cure, they frequently prolong the patient's life.

If all other attempts have failed, the patient should try different air and situations; for it has frequently happened that asthmatic patients have taken every medicine without effect, and have found a certain cure in a particular place.

Periodical asthma sometimes gives way to the bark, assisted with such other means as peculiar circumstances may require.

Many asthmatic persons who can hardly breathe in this country, enjoy good health in Italy, Spain, Portugal, or the south of France.

APOPLEXY.

THE apoplexy is a sudden privation of sense and motion, the pulse, at the same time, being kept up, but respiration is oppressed. The word is derived from the Greek, to strike suddenly; and in this disease the patients fall suddenly down. There are two species of apoplexy, the *sanguineous* and *serous*. The sanguineous arises from an over-distension or rupture of the blood-vessels of the brain or its membranes: the serous from an effusion of serum in the cavities of the brain. Except when the serous apoplexy is caused by general dropsy, diseases require nearly similar treatment.

It commonly attacks those advanced in years, especially such as are above sixty years of age. Till people are past the age of childhood, apoplexy never happens.

CAUSSE.

CAUSES. A large head, short neck, corpulent habit, an indolent life, intense application, full diet, frequent intoxication, suppression of habitual evacuations, violent exercise, violent anger, great external heat, warm bathing, too great length of time stooping with the head down, a tight ligature or bandage about the neck; the spring season, external violence, fracturing the skull, rupturing the blood-vessels of the brain, over-distension of the blood-vessels of the brain, viewing objects for a long time obliquely, excessive and luxurious eating, excess of venery, &c.

The patient should be very sparing in his meals; of which animal food should form but a very small part. Spirits, wine, and the stronger kind of malt liquor, as porter and ale, should be strictly avoided. The drink should chiefly consist of lemonade, sherbet, whey, buttermilk, &c. The cloathing should be light and loose, and care must be taken that nothing tight be worn about the neck. Plenty of exercise will be necessary, and no more sleep should be indulged in than is sufficient to recruit the strength. Sleeping immediately after a full meal should be carefully avoided; especially in a chair; "since," as the author of *Medical Admonitions* says, "In consequence of the muscles the which should support the head losing their power, during sleep, the head falls on one side, by which, the blood-vessels in the neck being compressed, the return of the blood from the head may be impeded, and a rupture of some of the vessels in the brain be thereby produced," p. 369.

SYMPTOMS. The fore-runners of this disease are usually head-ach, swimming or giddiness of the head, loss of memory, frequent drowsiness, noise in the ears, faltering of speech, and frequent fits of the incubus or night-mare. A distinguishing symptom of this disease is a deep sleep, attended with violent snorting; if any thing is put into the mouth, it is returned through the nose; nor can any thing be swallowed without shutting the nostrils; and even when this is done, the person is in the utmost danger of suffocation.

This

This disease very often kills at the first attack ; and few survive a repetition of the fit ; so that those who make mention of people who have survived several attacks of the apoplexy, have probably mistaken the epilepsy for it.

The danger will be in proportion to the violence of the attack, that is, to the degree in which the powers of sense and motion are affected, and the difficulty of respiration. When the breathing is greatly interrupted, when there is a frothing at the mouth, and cold sweats, death is soon to be apprehended. The power of swallowing being gone, bloody, or dark red-coloured urine are symptoms indicating great danger.

If it continues beyond the fourth day, without abatement, it is generally fatal ; but if over the seventh, they often recover. They frequently die the first, second, or third day.

This disease is to be prevented by avoiding the exciting causes, and such of the predisposing ones as are in our power ; preventing plethora, or fulness, by abstinence and regular proper exercise, by issues, setons, and keeping the body open, and by restoring suppressed habitual discharges.

CURE. In order to the cure, in case of the sanguine species, every method must be taken to lessen the force of the circulation towards the head ; immediately uncover the patient's head, raise it up as high as possible, and give him the advantage of fresh air : his cloaths should be loosened, especially about the neck. His garters should be tied pretty tight, to retard the motion of the blood from the other extremities. His feet should be suffered to hang down.

As soon as the patient is placed in a proper posture, he should be bled freely in the neck or arm, and, if there should be occasion, the operation may be repeated in two or three hours. A laxative clyster, with plenty of sweet oil, or fresh butter, and a spoonful or two of common salt, may be administered every two or three hours.

Blistering

Blistering plaisters may also be applied between the shoulders, and to the calves of the legs.

When the symptoms are somewhat abated, and the patient is able to swallow, he should drink freely of some diluting opening liquor, as a decoction of tamarinds and liquorice, cream-tartar whey, or common whey in which cream of tartar has been dissolved. Spirits, and other strong liquors, are to be avoided: volatile salts held to the nose are pernicious. Vomits, or any thing that may tend to increase the motion of the blood towards the head, ought not to be given.

In the fit, some assert that a handful of common salt, dissolved in a pint of water, if poured down the patient's throat will speedily recover him: the trial is easy, and nothing is to be feared in case of failure.

Keep the patient still and calm, and let his diet be aqueous, or diluting, and such as affords the least nourishment.

In the serous apoplexy, the symptoms are nearly the same, only the pulse is not so strong, the countenance is less florid, and the breathing less difficult. Though bleeding is not so necessary here as in the former case, it may be performed once with safety and advantage, but should not be repeated. The patient should also have blistering plaisters applied, and receive opening clysters in the same manner. Purges are also necessary, and strong balm-tea may be his drink. If he be inclinable to sweat, promote that inclination by giving him small wine-whey, or an infusion of *carduus benedictus*. A plentiful sweat, kept up for a considerable time, has many times carried off a serous apoplexy.

In gross habits mustard-seed may be swallowed two or three times a-day, to the quantity of a table-spoonful each doze. Horse-radish may be eaten freely.

Dr. Flemming recommends trepanning as a powerful assistant in the cure of apoplexies, by taking off a degree of pressure from the brain. See his observations on this subject, in the *Med. Mus.* Vol. II. 300.

Apoplexy from poisons. The poisons which bring on an apoplexy, when taken internally, are those of the stimulant

stimulant and sedative kind, as spirituous liquors, opium, and the more violent kinds of vegetable poisons. The vapours of mercury, or of lead, in great quantity, will sometimes produce a similar effect; though commonly they produce rather a paralysis, and operate slowly. The vapours of charcoal, or fixed air, in any form, breathed in great quantity, also produce an apoplexy, or a state very similar to it; and even cold itself produces a fatal sleep, though without the apoplectic snorting. To enumerate all the different symptoms which affect the unhappy persons who have swallowed opium, or any of the stronger vegetable poisons, is impossible, as they are scarcely to be found the same in any two patients. The state induced by them seems to differ somewhat from that of a true apoplexy; as it is commonly attended with convulsions, but has the particular distinguishing sign of apoplexy, namely, a very difficult breathing or snorting, more or less violent according to the quantity of poisonous matter swallowed.

Of the poisonous effects of fixed air, Dr. Percival gives the following account. "All those noxious vapours, whether arising from burning charcoal, the fermenting grape, the Grotto del Cani, or the cavern of Pyrmont, operate nearly in the same manner. When accumulated and confined, their effects are often instantaneous; they immediately destroy the action of the brain and nerves, and in a moment arrest the vital motions. When more diffused, their effects are slower, but still evidently mark out a direct affection of the nervous system.

"Those who are exposed to the vapours of the fermenting grape, are as instantly destroyed as they would be by the strongest electrical shock. A state of insensibility is the immediate effect upon those animals which are thrust into the Grotto del Cani, or the cavern of Pyrmont: the animal is deprived of motion, lies as if dead; and if not quickly returned into the fresh air, is irrecoverable. And if we attend to the histories of those who have suffered from the vapours

“ of burning charcoal, we shall in like manner find, that
“ the brain and moving powers are the parts primarily
“ affected.

“ A person was left reading in bed with a pan of
“ charcoal in a corner of the room. On being visited
“ early the next morning he was found with his eyes
“ shut, his book open and laid on one side, his candle
“ extinguished, and to appearance like one in a deep
“ sleep. Stimulants and cupping-glasses gave no re-
“ lief; but he was soon recovered by the free access of
“ fresh air.

“ Were the following cautions generally attended to,
“ they might in some instances be the happy means of
“ preserving life. Never to be confined with burning
“ charcoal in a small room, or where there is not a free
“ draught of air by a chimney or some other way. Never
“ to venture into any place in which air has been long
“ pent up, or which from other circumstances ought to
“ be suspected; unless such suspected place be either
“ previously well ventilated, or put to the test of the
“ lighted candle. For it is a singular and well-known
“ fact, that the life of flame is, in some circumstances,
“ sooner affected and more expeditiously extinguished by
“ noxious vapours, than animal life.

“ The most obvious, effectual, and expeditious means
“ of relief to those who have unhappily suffered from
“ this cause, are such as will dislodge and wash away
“ the poison, restore the energy of the brain and nerves,
“ and renew the vital motions. Let the patient there-
“ fore be immediately carried into the open air, and let
“ the air be fanned backwards and forwards to assist its
“ action: let cold water be thrown on the face; let the
“ face, mouth, and nostrils be repeatedly washed; and,
“ as soon as practicable, get the patient to drink some
“ cold water. But if the case is too far gone to be thus
“ relieved, let a healthy person breathe into the mouth
“ of the patient; and gently force air into the mouth,
“ throat, and nostrils. Frictions, cupping, bleeding, and
“ blisters, are likewise indicated, and if, after the danger
“ is

“ is removed, a fever be excited, the method of cure
“ must be adapted to the nature and prevailing symp-
“ toms of the fever.”

With regard to the poison of opium, Dr. Mead recommends the following method of cure. Besides evacuations by vomiting, bleeding, and blistering, acid medicines and lixivial salts are proper. These contract the relaxed fibres, and by their diuretic force make a depletion of the vessels. Our author says he has given repeated doses of a mixture of salt of wormwood and juice of lemons, with extraordinary success.

Apoplexies from violent passions of the mind may be either sanguineous or serous, though more commonly of the former than the latter species. The treatment is the same in either case.

Apoplexy from suffocation, is a kind of apoplexy which takes place in those who are hanged or drowned. Besides the species above-mentioned, the apoplexy is a symptom in many other distempers, such as fevers both continued and intermitting, epilepsy, gout, worms, scurvy, &c.

Persons of an apoplectic make, or who have been attacked by it, should confine themselves to a very spare and slender diet, and avoid strong liquors, spiceries, and high-seasoned food: they must not give way to violent gusts of passion, nor adopt the extremes of heat or cold. The head of an apoplectic person should be shaved, and daily washed with cold water; his feet should be kept warm and dry; and his body gently open, either by food or medicine; he should lose a little blood every spring and fall; moderate exercise must not be neglected; perpetual issues or felons have a happy affect in preventing an apoplexy, but they must not be suffered to dry up, without opening others. Apoplectic persons should never wear any thing tight about the neck, go to rest with a full stomach, or lie with the head low.

THE PALSY:

THE palsy, or paralysis, is a disease wherein the body, or some of its parts, lose their motion, and sometimes their sensation or feeling. When the muscles of the whole body are affected, it is named paraplegia, and when one limb only paralysis.

CAUSES. Compression of the brain from any of the causes mentioned in apoplexy. Injury of the nervous system from intemperance, certain poisons received into the body, lead in particular. The palsy is also occasioned by any debilitating power applied to the body, especially by excesses in venery. Palsies are sometimes a kind of crisis to other distempers, as the colic of Poitou, and the apoplexy. They are also occasioned by injuries done to the spinal marrow, and sudden fright; by very cold or damp air, or want of exercise, &c. Aged people, and those who are by any other means debilitated, are subject to palsy; which will sometimes also affect even infants. Palsies are also the infallible consequences of injuries of the large nerves. It has been thought to happen more frequently to females than to men.

SYMPTOMS. The palsy shews itself by a sudden loss of tone and vital power in a certain part of the body. In the slighter degrees of the disease, it only affects a particular muscle, &c. In the higher degrees of the disease, the paralytic affection is diffused over a whole limb, as the foot, leg, hand, or arm; and sometimes it affects a whole side of the body, in which case it is called hemiplegia; and sometimes, which is the most violent case, it affects all the parts below the waist, or even below the head, though this last is exceedingly rare. In these violent cases, the speech is either very much impeded, or totally lost. Convulsions often take place in the sound side, with the cynic spasm or involuntary laughter, and other distortions of the face. Sometimes the whole paralytic part of the body becomes
livid,

livid, or even mortifies before the patient's death; and sometimes the paralytic parts gradually decay and shrivel up, so as to become much less than before.

Except in the slighter cases of palsies, we have little room to hope for a cure; however, death does not immediately follow even the most severe paralytic affections. In an hemiplegia it is not uncommon to see the patients live several years; and even in the paraplegia, if death does not ensue within two or three weeks, it may not take place for a considerable time. It is a promising sign when the patient feels a slight degree of painful itchiness in the affected parts; and if a fever should arise, it bids fair to cure the palsy. When the sense of feeling remains, there is much more room to hope for a cure, than when it is gone, as well as the power of motion. But when we observe the flesh to waste, and the skin to appear withered and dry, we may look upon the disease to be incurable. Convulsions supervening on a palsy are a fatal sign. The older the patient, the less chance there is of recovery. A diarrhoea sometimes removes the disease. The third attack is generally fatal.

REGIMEN. The diet should be light, nourishing, and stimulating.

CURE. Many remedies have been recommended in palsies; but it must be confessed that, except in the slighter cases, medicines seldom prove effectual; and before any scheme of cure can be laid down, every circumstance relative to the patient's habit of body, and previous state of health, should be carefully weighed.

In young persons of a full habit, the palsy should be treated in the same manner as the sanguine apoplexy. The patient must be bled, blistered, and have his body opened by sharp clysters or purgative medicines. But in old age, or when the disease proceeds from relaxation or debility, which is generally the case, a contrary course must be pursued. The diet must be warm and invigorating. The drink should be generous wine, mustard whey, or brandy and water. Friction with the flesh brush, or a warm hand, is extremely proper, especially on the parts affected.

Stimulants,

Stimulants, external and internal, must be employed: the external ones are blisters, washing the body or limbs with infusions or decoctions of mustard-seed, or horseradish, in water; stinging with nettles; stimulating, volatile fomentations, and liniments. "One of the best external applications," says Dr. Buchan, "is electricity. The shocks should be received on the part affected, and they should be repeated for several weeks."

Dr. Falconer, however, observes, that, "Electricity has often been recommended as a remedy in palsy, and much cried up by some that pretend to secrets in the mode of administering this remedy. But the medical faculty have, I believe, nearly lost all faith in it, from experience of its general inefficacy to be of service, and, in some instances, of its mischievous effects. I am more certain that a strong electric shock possesses the power of causing a palsy, than I am of its having any power to cure it." *Mem. of the Medical Society, London, Vol. II. p. 493.*

It is further observed, by Dr. Falconer, "That it is a frequent practice to lap up paralytic limbs in many folds of flannel, and to keep the person so affected, very warm in every respect. But this is undoubtedly a very noxious practice, as it generally induces a tendency to sweat on the paralytic part, which always weakens it."

A large spoonful of mustard-seed may be taken three times a-day, washed down with a little wine and water.

The natural hot-baths are often found useful in paralytic cases; and where the patients cannot avail themselves of these, an artificial bath may be tried by dissolving salt of steel in water, and impregnating the water with fixed air.

Vomits are found very beneficial, and should be frequently administered. Cephalic snuff, or any thing that provokes sneezing, is also useful. When the tongue is affected, the patient should gargle his mouth frequently with brandy and mustard. The wild valerian-root is a very proper medicine in this case, and may be taken in an

an infusion with fig-leaves ; or half a dram of it in powder may be given in a glass of wine three times a-day. The patient should also chew cinnamon-bark, ginger, or other warm spices.

If the palsy arises from certain poisons received into the body, of which lead is the most frequent, added to the other means, a freer use of stimulating purges and clysters will be necessary, to detach the leaden particles from the intestines. The bark has not been found serviceable here.

This disorder, according to Dr. Cheyne, may be cured by a total cow-milk diet. He thinks the medicines commonly prescribed in such cases may retard the progress of the distemper, but that it is never to be eradicated if the stroke be deep, or life far spent, but by cow-milk only.

THE EPILEPSY, OR FALLING SICKNESS.

AN epilepsy is a violent, involuntary, or convulsive contraction of the nerves, membranous, and muscular parts of the whole body, attended with a loss of all sensation and voluntary motion.

CAUSES. Whatever diminishes the energy of the brain, as great loss of blood, terror, horror, violent joy or anger ; and over distension of the blood vessels of the brain. The epilepsy is sometimes hereditary ; sometimes it proceeds from frights of the mother during pregnancy ; from blows, bruises, or fractures on the head ; acrid fluids in the brain, worms, teething ; too great emptiness, or repletion ; tumours, splinters, or concretions within the skull ; certain diseases, as the eruptive fever in the small-pox, scarlatina, &c.

When it is hereditary, it can seldom be removed. If the epilepsy come on before the time of puberty, there are some hopes of its going off at that time : but it is a bad sign when it attacks about the twenty-first year, and still worse if the fits grow more frequent, for then the animal functions are often destroyed, as well as those

of the mind, and the patient becomes stupid and foolish. Sometimes it will terminate in melancholy or madness, and sometimes in a mortal apoplexy, or palsy. It hath sometimes, however, been observed, that epilepsies have been removed by the appearances of cutaneous diseases, as the itch, small-pox, measles, &c. While the disease is recent, therefore, we are not to despair of a cure; but if it is of long standing, or hereditary, there is very little reason to expect that it can be removed.

SYMPTOMS. The epilepsy often attacks suddenly, and without giving any warning; but more frequently is preceded by a pain in the head, lassitude; some disturbance of the senses, unquiet sleep, unusual dread, dimness of sight, a noise in the ears, palpitation of the heart, coldness of the joints, and in some there is a sensation of a cold air, &c. ascending from the lower extremities towards the head.

In the fit, the persons fall suddenly to the ground, (whence the name of the Falling Sickness) frequently with a violent cry. The thumbs are shut up close in the palms of the hands, and are with difficulty taken out; the eyes are distorted, so that nothing but the whites are to be seen. All sensation is suspended, insomuch, that by no small noise, or otherwise, nor even by pinching the body, can they be brought to themselves; the patient froths at the mouth, with a hissing kind of noise; and there is a violent convulsive motion of the arms and legs; and if great care is not taken, the tongue is thrust out of the mouth between the teeth, and would be injured by their convulsive closing.

During the fit, great care is necessary to be taken that the patient does not injure himself by the violence of his struggles. Nothing, easily broken, should be used for the purpose of offering him drink, lest, from his delirious state, he should bite out a piece of the edge of a cup, glass, &c. and get the sharp and broken fragments within his mouth.

Sometimes, however, the limbs, instead of being agitated by convulsive motions, are all stiff, and the patients are immoveable as a statue. In children the penis

penis is erected; and in young men there is an emission of the semen, and the urine is often thrown out to a considerable distance. At length there is a remission of the symptoms, and the patients recover after a longer or shorter interval; when they complain of a pain, torpor, and heaviness of the head, with a lassitude of all the joints.

This disease, from the difficulty of investigating its causes, and its strange symptoms, was formerly attributed to the agency of evil spirits. It is called *morbis carducus*, or *falling sickness*, because the patient falls suddenly to the ground; the *Great* or *Herculean disease*, on account of its violence, and the difficulty in conquering it; *morbis sacer*, or *sacred disease*, because it affects the mind, and most noble parts of the body; *divine disease*, either because it requires something more than human for its cure, or because it was thought to be sent from heaven as a curse upon earth; *morbis infantilis*, and *puerilis*, because it happens most frequently to children.

Even in modern times, the vulgar have imputed it to witchcraft or facination; though it depends as much upon natural causes as any other malady; and its cure may be often effected by persevering in the use of proper means.

REGIMEN. The diet of epileptic patients should be light but nourishing: they should avoid swines' flesh, water-fowl; and all windy and oily vegetables, as cabbage, nuts, &c. They should, if possible, breathe a pure and free air. They should be cheerful, and guard against violent passions, whether of anger, fear, terror, joy, &c. Exercise will also be highly necessary; but the extremes of heat or cold are to be avoided.

CURE. In all convulsive disorders, excepting those which are cured by nature about the time of puberty, the cure by artificial means is very difficult. Numberless specifics have been recommended, but all of them have failed of answering the expectation. When the cause can be removed, that must be removed. In other

cases, the cold bath, valerian root, castor, musk, opium, the foetid gums, Peruvian bark, with the whole tribe of nervous and antispasmodic medicines have been recommended: but none of these, or indeed any combination of them, have been found generally useful; though the slighter, or symptomatic cases, may often be removed by them.

If the patient be of a sanguine temperament, and there is reason to fear an obstruction in the brain, bleeding and other evacuations will be necessary. If the disease is occasioned by the stoppage of customary evacuations, these should immediately be restored, or others substituted in their place. Issues or setons have often been found very beneficial in this case. Should worms be supposed to be the cause of the disease, proper medicines should be given to destroy or carry off these vermin. When the disease proceeds from teething, the body should be kept open by emollient clysters, the feet often bathed in warm water; and, if the fits prove obstinate, a blistering plaster may be placed between the shoulders. The same method should be pursued, when epileptic fits precede the eruption of the small-pox, measles, &c. When the disease is owing to a debility, or too great an irritability of the nervous system, such medicines as tend to brace and strengthen the nerves may be given, as the Peruvian bark, and steel, &c.

The flowers of zink have lately obtained such reputation in convulsive disorders, as to be received into the Edinburgh dispensatory.

In the first volume of *Edin. Medical Commentaries*, we have an account, by Mr. Benjamin Bell, of a man, afflicted with a confirmed epilepsy, who was considerably relieved by the flowers of zink. He was about thirty-five years of age, and been subject to the disease for ten years:

Dr. Percival relates some cases of epilepsy which seem to have been cured by the flowers of zink; and in other cases, where the disease was not entirely removed
by

by it, the spasms were nevertheless much mitigated. The good effects of flowers of zink, as an antispasmodic, are also attested by Dr. Haygarth of Chester, and Dr. White of York.

The dose is from one to three or four grains, either in pills, or a bolus, at the option of the patient. Some begin with a single grain, four or five times a-day, and gradually increase the dose as far as the patient can bear.

Musk has sometimes been successfully used in the epilepsy; ten or twelve grains of it, with an equal quantity of factitious cinnabar, may be made up into a bolus, and taken every night and morning.

The epilepsy has been sometimes cured by electricity.

Convulsions, in general, however different their seat, will require to be treated upon the same general principle.

Cheyne says, that the epilepsy differs but little, otherwise than in the degree, from hypochondriac and hysterical fits, and observes, that when the former abates, it ends in hypochondriacal or hysterical disorders; and when the latter is violent, they terminate in epilepsies: he therefore urges to a free use of vomits, bitters, and steel.

ST. VITUS's DANCE.

MEAD and Pitcairn say, that this disorder is of the paralytic kind: Sydenham calls it convulsive: Biss and Cheyne say, that it partakes both of the convulsive and paralytic kinds.

Sydenham is generally allowed to excel in his description of this complaint. " It is (says he) a kind of convulsion which principally attacks children of both sexes from ten to fourteen years of age. It first shews itself by a lameness, or rather unsteadiness of one of the legs, which the patient draws after him like an idiot, and afterwards affects the hand on the same side; which being brought to the breast or any other

“ part, can by no means be held in the same posture for
 “ a moment, but is distorted or snatched by a kind of
 “ convulsion into a different posture or place, notwithstanding
 “ all possible efforts to the contrary. If a glass
 “ of liquor be put into the hand to drink, before the
 “ patient can get it to his mouth, he uses a thousand
 “ odd gestures; for, not being able to carry it to his
 “ mouth in a straight line, because his hand is drawn
 “ different ways by the convulsion, as soon as it hath
 “ reached his lips he throws it suddenly into his mouth,
 “ and drinks it very hastily, as if he only meant to divert
 “ the spectators.”

Dr. Temple is more concise in his description of this disease. He says, “ The leg, foot, arm, and hand, of
 “ the same side, are affected with convulsions. In walk-
 “ ing the leg is dragged along, and the arm cannot carry
 “ any thing directly to the mouth. The head and trunk
 “ are also sometimes so affected, that the alternate con-
 “ vulsions of these different parts, form a most ludicrous
 “ gesticulation, resembling dancing.”

This disease may be cured by repeated bleedings and purges, and then using the medicines prescribed above for the epilepsy. Chalybeate-waters are beneficial in this complaint. The cold bath will be found singularly serviceable, and should never be neglected when the patient can bear it. Electricity is very proper; and dry-cupping the parts affected has sometimes good effects.

Those who have once suffered under this disease are very subject to a relapse. However violent the symptoms are, they are never suddenly destructive. When recent in a young person, of an otherwise good constitution, there is good hope of a speedy cure. If the menses or hæmorrhoids are obstructed, their return will mitigate if not cure the disease. If the temperament is very sensible, the disease hereditary, or become habitual, the cure is very difficult. Through ill management it may degenerate into an epilepsy or hypochondriac melancholy.

SYNCOPE,

SYNCOPE, OR FAINTING FITS.

FAINTING is most frequently occasioned by profuse evacuations, especially of blood; but it may happen also from violent passions of the mind, from surfeits, excessive pain, violent exercise, disgusting sights, drinking freely of warm or strong liquors, exposure to great heat, intense application to study, certain odours or smells, &c.

People of delicate constitutions are very subject to it from slight causes; and sometimes it will arise from affections of the heart and large vessels, not easy to be understood. Fainting is also a symptom of many disorders, especially of that fatal one called a *polypus of the heart*, of the plague, and many putrid diseases.

A disposition to this disease may take place wherever debility exists; but when it frequently recurs, without any obvious cause, a morbid state of the heart or brain themselves is to be suspected.

A syncope begins with a remarkable anxiety about the heart; after which follows a sudden extinction, as it were, not only of the animal powers and actions, but also of the vital powers, so that the patients are deprived of pulse, sense, and motion, all at once.

In these cases the patient does not entirely lose his senses, but turns cold and pale; and the pulse continues to beat, though weakly; the heart also seems to tremble rather than beat, and the respiration, or breathing, is just perceptible. But in the true syncope, not the smallest sign of life can be perceived; the face hath a death-like paleness, the extremities are cold, the eyes shut, or at least troubled; the mouth sometimes shut, and sometimes gaping wide open; the limbs flaccid, or limber, and the strength quite gone; as soon as they begin to recover, they fetch deep and heavy sighs.

In order to revive the patients, they ought to be laid along in a horizontal posture, in an airy place; the legs, thighs, and arms, are to be rubbed with hot flannels; very strong vinegar, or salt of hartshorn, or the

spirit of this or of sal ammoniac are to be held to the nostrils, and rubbed into them, or, being properly diluted, poured down the throat; cold water is to be sprinkled on the face and neck; and when by these means the patient shall be sufficiently revived, wine boiled up with some grateful aromatic, is to be given in the proper quantity.

When persons of a full habit faint through excess of passion, they ought to be bled without delay, and should drink vinegar or lemon-juice diluted with water; and, after the bowels are emptied by a clyster, take a paregoric draught, and go to bed.

When violent fits are occasioned by a sudden fright, the first endeavours must be to take off the spasmodic constriction, or contraction, and restore freedom to the circulation by bleeding, if the habit be inclined to fulness; and by giving a mixture, with equal parts of the vinum antimoniale and elixir paregoricum, in some agreeable vehicle, which will bring on sleep, and encourage perspiration. It is well known that convulsions, or even an epilepsy, may be brought on by frights; a consideration which ought to be sufficient to deter the giddy and thoughtless from practising tricks to excite surprise or terror.

In an obstinate syncope the patient must be bled, and a clyster will afterwards be proper: he should then be kept easy and quiet, and every half hour he should be supplied with a cup or two of the infusion of any mild vegetable, to which a little sugar and vinegar may be added.

When fainting is occasioned by too strong or acrid purges or vomits, the patient must drink plentifully of milk, warm water, barley water, and such like: emolient clysters will also be proper, and the patient should afterwards take generous cordials and anodyne medicines to recruit his strength.

Faintings, occasioned by indigestion, may proceed from the quantity or quality of the food. If from the quantity, a vomit should be taken, which may be promoted by directing the patient to drink a weak infusion of camomile flowers, carduus benedictus, or the like.

If

If the disorder proceeds from the nature of the food, the patient must be revived by strong smells, &c. after which he should be prevailed upon to swallow a large quantity of light warm fluid, which may serve to soften the acrimony of the offending matter, and either to cause a discharge of it by vomiting, or force it down into the intestines.

Disagreeable odours, or smells, sometimes occasion swooning, especially in people of weak nerves. In such case the patient should be taken into the open air, the cause of the offensive smell should be removed, and stimulating things held to his nose.

Fainting fits are common in the progress of diseases. In the beginning of those of a putrid kind, they generally denote an oppression at the stomach, or a mass of corrupted humours, and they cease after evacuations either by vomit or stool. If they occur at the beginning of malignant fevers, they indicate great danger. In either of these cases, vinegar should be used both externally and internally during the paroxysm, and plenty of lemon-juice and water after it.

When fainting happens in the beginning of any acute distemper, it is by no means a good omen; but when it takes place in the increase or at the height of the disease, the danger is somewhat less; but, in general, when fainting comes on without any evident cause, it is to be dreaded. In violent hæmorrhages it is favourable, as the bleeding vessels thus have time to contract and recover themselves, and thus the patient may escape.

Faintings which happen in diseases accompanied with great evacuations, must be treated as if they were the effect of weakness, and the evacuations should be restrained. When they happen towards the end of a violent fit of an intermitting fever, or at that of each exacerbation, the patient should be supported by small draughts of wine and water.

Delicate and hysteric women are very liable to fainting fits after delivery, which might generally be prevented by generous cordials and the admission of fresh air. Whatever may be the cause of fainting fits, fresh air is certainly of the greatest consequence to the patient.

patient. Crowds of persons are too frequently admitted into the sick chamber of the patient, so as greatly to increase his danger; instead of which the windows of the apartment should be always open, and nothing be suffered to impede the current of fresh air.

As frequent swoonings are very injurious to the constitution, no means should be neglected to remove them as soon as possible. Every fit leaves the patient in a state of dejection and weakness; the secretions are thereby suspended, and the humours disposed to stagnation.

DYSPEPSIA, OR DIFFICULTY OF DIGESTION.

THE causes of dyspepsia may be any thing which debilitates the system in general, but in a particular manner affects the stomach. Such are opium taken in immoderate quantities, which hurts by its sedative and relaxing powers; spirituous liquors drank to excess; tobacco, tea, coffee, or any warm relaxing liquor, taken in too great quantity; acid, unripe fruits; vomits or purges too frequently taken; an indolent sedentary life; loss of tone, and weakness of the muscular coat of the stomach; disorderly passions; intense study; excess in venery, frequent immoderate repletion of the stomach; humid cold air, without its effects being corrected by exercise.

SYMPTOMS. It would be difficult to enumerate all the symptoms of this malady: the most remarkable, and the most common, are the following: squeamishness; want of appetite; vomitings; distension of the stomach, when no food hath been taken for some time before; evacuations, or belchings; heart-burn; pain in the stomach; a weight, oppression; great uneasiness and anxiety after eating; slight dejection of spirits; languor, and aversion to motion; the food which is taken without appetite is not well digested; the stomach and intestines are much distended with wind, whence

the patients are tormented with spasms, gripes, and sickness: frequently a limpid water, having an acid or putrid taste, is brought up; and sometimes the food itself is thrown up by mouthfuls.

While matters are in this situation, the heart sometimes palpitates, and the breath is quick, and drawn with difficulty; the head aches and is giddy; and sometimes both these symptoms are continual, and very violent, insomuch that the patient is not only tormented with pain, but staggers as if he was drunk.

By reason of the too great acescency, (sourness) or putrefaction of the aliment, a heart-burn comes on, and in this situation a spontaneous or voluntary diarrhæa sometimes carries off the disease; but in other cases there is an obstinate costiveness, attended with colic pains. Frequently the pulse is quick, sometimes slow, but always weak: the circulation is so languid that the blood can scarce reach the extreme vessels, or at least stagnates in them, so that the face becomes livid, swelled, and has an unusual appearance; and at the same time that the circulation and nervous power are in this languid state, the perspiration becomes less copious; the skin becomes dry and wrinkled; the natural heat, especially of the extremities, is much diminished; the tongue is white; and an universal laxity takes place.

When this disorder first occurs, it is frequently removed without much difficulty; when it is symptomatic, we must endeavour to cure the primary disease; but when it frequently returns, with symptoms of great debility, hectic, or dropsy, we have reason to dread the event.

REGIMEN. The patient must be directed to take proper exercise, a light non-acrescent diet; biscuits should be used instead of fermented bread: food must be taken in small quantities, and often; and the patient should be ordered to use the cold bath; and cautiously to avoid the occasional causes. He should eat very sparingly of vegetables, and those of the least acrescent kind.

CURE. The cure will consist in restoring the tone of the stomach, and palliating the present symptoms. Begin by removing the crudities that may be in the stomach by emetics: the symptoms arising from acidity will be removed by alkalies or absorbents.

A radical cure of this disorder is only to be expected from tonic medicines, which can remove from the stomach and system that debility on which it depends. But previous to their use, it will be necessary to evacuate the contents of the alimentary canal by vomits or purgatives. If there is a tendency to putrescency, antiseptics must be exhibited; but more frequently there is a prevailing acidity, which creates an intolerable heart-burn. To palliate this symptom, magnesia alba may be given; which is much preferable to the common testaceous powders, as being purgative when dissolved in an acid, while the others are rather astringent.

In the third volume of the Medical Observations, we have an account of two cases on this subject, attended with a very uncommon degree of heart-burn, in which magnesia was so successful, that we cannot doubt of its efficacy in slighter degrees of the disorder.

The Bath waters are particularly recommended for their known efficacy in this case.

Dr. Cullen strongly recommends the tar water; which is prepared in the following manner: put two pounds of tar into a gallon of water; being well stirred together, let them stand for two days to subside. The patient must take from a pint to a quart in twenty-four hours.

Fermented liquors should be forbidden, and wine and water, or weak spirit and water, taken in their stead.

OF HYPOCHONDRIAC AFFECTIONS, OR THE HIP.

THE hypochondriac affection, or passion, is a popular disease, otherwise called the spleen, vapours, &c. The hypochondriac is a very comprehensive disease:

it is variously denominated, according to the various symptoms it is attended with, and the various parts where it is supposed to be seated, or in which it arises.

When conceived as situate in the hypochondriac regions, or arising from some disorder of the parts contained therein; as the spleen, liver, &c. it is properly called the hypochondriacal disease, spleen, &c.

When conceived as owing to some disorder of the womb, it is called the hysteric affection, &c. And lastly, when the flatulent rumblings in the intestines, belchings, &c. are considered, it is called the vapours.

The hypochondriac is a very common and very obstinate disease: few men of a sedentary life, and fewer women are free from it. It becomes daily more common in this country, owing perhaps to the increase of luxury, and sedentary employments. Its symptoms are very numerous: the most usual are, a pain in the stomach, windiness, costiveness, vomitings, a swelling or distension of the hypochondrium, or upper part of the belly, noises and rumblings in the lower ventre, wandering pains, a constriction of the breast, difficulty of breathing, palpitation of the heart, faintings, inquietudes, swimming of the head, fear, suspicions, melancholy, deliriums, &c. And lastly, says Dr. Sydenham, which is the most unhappy circumstance of all, the patient is sometimes more affected in mind than in body.

Vehement motions of the body, or more usually violent perturbations of the mind, as grief, anger, fear, &c. are among its causes. It is usually brought on by long and serious attention to abstruse subjects, the suppression of customary evacuations, excess of venery, the repulsion of cutaneous eruptions, obstructions in some of the viscera, as the liver, spleen, &c.

CURE. In the cure the stomachic symptoms are to be relieved by some of the means recommended for their relief in dyspepsia, or indigestion, but in this case tonics are not indicated: there does not appear to be a want of tone, but of activity in the circulating powers.

The chief consideration, says Dr. Temple, is the amusement of the mind, which must be attempted by every means, and with all our address, and very wise conduct is necessary in the management of these patients.

REGIMEN. "The hypochondriac," says the celebrated Dr. Cullen, "is distinguished by a languor, listlessness, and want of resolution and activity with respect to all undertakings; a disposition to seriousness, sadness, and timidity; as to all future events, an apprehension of the worst, or most unhappy state of them; and therefore, often upon slight grounds, an apprehension of great evil."

Such persons attend minutely to the state of their own health, and from any unusual feeling, even of the slightest kind, they apprehend great danger, and even death itself.

Their apprehension of evil, however ill-founded or ridiculous it may appear, must not be treated with levity; every apprehension is to them a reality, and they cannot bear to have their complaints and fears laughed at, or treated with raillery, and reasoning upon them will have no good effect.

The mind must therefore be diverted from itself, the train of thoughts must be interrupted by amusements of various sorts, adapted to the disposition and circumstance; by attention to business, when it is not attended with fatigue and anxiety; by hunting, shooting, and other field diversions; progressive journies, on horseback, where the scene will be constantly changing, and Bath may be recommended; and within doors, cheerful company and cards, where the stake is not great, or late hours the consequence, afford an amusement well adapted to hypochondriac cases. Amusing books will also be proper.

Hypochondriac patients should never fast long, and their food should be solid and nourishing. Acescent and windy vegetables should be avoided. Flesh meats best suit them, and their drink may be claret, or good madeira. Should these be absent, or disagree with the stomach,

stomach, brandy and water, or rum and water, if not too strong, may be drank. But though a cheerful glass may have good effects in this disease, yet all manner of excess is hurtful. Intense study, and every thing that depresses the spirits, are likewise pernicious.

For the cure, the principal indications are to correct the vicious cause in the stomach, to strengthen the alimentary canal, to increase the vital heat, and to promote the secretions; which is to be effected, after proper evacuations, by occasional emetics and purges, by chalybeates, bitters, strengtheners, and volatile spirits. The different preparations of iron, and the Peruvian bark, have considerable effect in this disease.

If the patient is costive, two, three, or four pills, composed of equal parts of aloes, rhubarb, and asafœtida, with a proper quantity of the elixir proprietatis to form the ingredients into a pill, may be taken occasionally, to keep the body gently open. Those who cannot bear the asafœtida, may use the Spanish soap.

In some there is an habitual disposition to this disorder, and such people have generally a fallow or brown complexion, and a down-cast look. Whatever may give rise to nervous disorders in general, may be a cause of this in particular. Those will be always more or less subject to this disorder, whose stomachs generate acidities from fermentation, or where there is a putrefactive disposition in the alimentary solids and fluids, the gas, or spirit, separated by either of these causes, is suddenly diffused, and continues to repel the vital heat, whenever it is present in any considerable degree.

OF HYSTERIC AFFECTIONS.

THIS is a convulsive disease which comes on at uncertain intervals, sometimes longer, and sometimes shorter, but at no stated time. Females are more subject to this disease than males; they are most liable to be affected with it from the time of puberty till thirty-five years of age, and it most frequently occurs about the

the menstrual periods. It more usually attacks barren women, and young widows, than such as are bearing children.

The paroxysms, or fits, usually begin with a languor and debility of the whole body; yawning, stretching, and restlessness. A sense of coldness in the extremities generally succeeds, and for the most part remains during the whole time of the fit. To this sometimes succeeds a sense of heat; and the two sensations alternate with each other in different parts of the body.

The face is sometimes flushed, and sometimes pale; and frequently it is so alternately: a violent pain in the head is felt, the eyes become dim, and pour out tears; there is a rumbling and inflation of the intestines; a sensation is felt like that of a ball or globe ascending from the lower part of the abdomen, or belly, which sometimes seems to roll along the whole alimentary canal. It ascends to the stomach, sometimes suddenly, sometimes slowly; and there produces a sense of windiness and weight, with anxiety, nausea, and vomiting. At last it comes up to the throat, and gives an idea of suffocation, with difficulty of breathing or swallowing.

During this time there are violent pains both in the external and internal parts of the abdomen: the muscles are convulsed; the navel is drawn inwards; and there are frequently such spasms of the intestines, that neither clysters can be injected, nor even wind pass downwards. Sometimes the fit abates, after these symptoms have continued for a certain time; but more frequently the patients fall into fainting fits: sometimes, indeed, they lie without motion, as if they were in a profound sleep; sometimes they beat their breasts violently and continually with their hands, and sometimes they are seized with general convulsions, and the disease puts on the appearance of an epilepsy.

In some hysteric patients the extremities become cold and stiff, and the body has the appearance of one in a catalepsy. Sometimes a violent beating pain takes place

place in a part of the head, as if a nail was driving into it, and all visible objects appear to turn round: grievous pains attack the loins, back, and bladder, and the patients make a surprising quantity of urine as limpid as water: which last is one of the surest signs of the disease.

It is often attended with frequent and sudden transitions from laughing to crying, and from crying to laughing. It will be distinguished from epilepsy by the quantity of limpid urine; by the frequent transitions from laughing to crying; and, according to Dr. Darwin, from the great fear of dying.

Though this disease is so terrible, it seldom proves mortal unless by improper treatment; it is, however, extremely difficult of cure, and rarely admits of any thing but palliation; for, though it should seem to be conquered by medicine for a time, it very quickly returns, and that from the slightest causes.

CURE. The great aim, in this disease, must be to shorten the fit or paroxysm, and to prevent its return; as it gathers strength by continuance or frequent returns. The most powerful remedy hitherto discovered, in hysteric cases, is opium, or the solution of it called *Laudanum*. By this the most violent paroxysms are generally stopped, though it is not sufficient to accomplish a radical cure.

In Home's Clinical Experiments, we find an instance of a cure performed by venesection or bleeding, though this remedy hath been generally condemned in hysterical cases.

Asafoetida seems to stand next in virtue to opium; though with some it disagrees, and occasions vomiting and pains in the stomach. Castor has, in some cases, been found to procure sleep, where opium failed; and therefore Dr. Whytt advises that they should be joined together.

Æther will frequently remove an hysteric fit: but its effects are of short duration; and if it does not perform a cure soon after its exhibition, no service is to be expected

pected either by perseverance in the use of it, or by increasing the dose; and with some constitutions it disagrees so extremely that it occasions convulsions.

If the patient should be seized with such a violent fit as to prevent her swallowing any thing, which is sometimes the case, it will be proper to apply some strong volatile-alkali to her nose; or if that cannot readily be procured, the stench of burning feathers is sometimes very efficacious. Hot bricks may also be applied to the soles of the feet; and the legs, arms and belly may be rubbed with a warm cloth. To put the feet and legs into warm water, will be salutary, and particularly so when the fits precede the flow of the menses. If the patient is costive, a laxative clyster with asafœtida will be proper; and, as soon as he is able to swallow, two table-spoonfuls of a solution of asafœtida, or of some cordial julep, may be given.

A milk and vegetable diet, if duly persisted in, has been said to effect a cure; but if the patient has been accustomed to rich and potent food, and liquor, he must gradually reduce himself to a disposition to be satisfied with his simple fare.

Cold-bathing; or any thing that braces the nerves, and invigorates the system, is very beneficial. It is also of importance to have the mind kept, at all times, easy and chearful, and, if possible, to have it always occupied in some pleasant and interesting pursuit.

A radical cure is to be attempted by exercise, the preparations of iron, the Peruvian bark, chalybeates, mineral waters, and other tonics. Twenty drops of the elixir of vitriol, in a cup of the infusion of the bark, may be taken two or three times a-day. The bark and iron may also be taken in substance, provided the stomach can bear them; but they are generally given in too small doses to have any effect. The chalybeate waters are found very beneficial in this disorder.

Gentle vomits will be of use, if the stomach is loaded with phlegm; but if they are too strong, or too frequently repeated, they weaken and relax the stomach.

When

When a tendency to costiveness is evident, it may be occasionally removed either by diet, or an opening pill.

The common causes of this disorder are violent passions, as fear, rage, love, grief, sweet smells, &c. Women of a delicate habit, whose stomach and intestines are relaxed, and whose nervous system is extremely sensible, or irritable, are most subject to hysteric complaints. In such persons an hysteric fit may be brought on by an irritation of the nerves of the stomach, or intestines, by wind, acrid humour, &c. A sudden suppression of the menses often occasions hysteric fits.

As for the popular notion of malignant vapours arising from the womb, and occasioning all these symptoms, all the learned discard it. The real cause, they affirm, is in the animal spirits, and the nervous system; and the affection does not differ from the hypochondriac.

The remote causes being, in many respects, the same as those of epilepsy, the radical cure must be the same.

Hysteric affections are generally used, by authors, promiscuously with hypochondriac affections; the two diseases being supposed to be in reality the same. They only differ, indeed, in point of relation and circumstance.

Hysteric women are frequently afflicted with cramps in different parts of the body, which seize them most commonly in bed, or when asleep. In this case opium, blistering plasters, and fomentations are the most efficacious medicines.

PART X.

THE CHOLERA MORBUS, DIARRHÆA, DIABETES, SUPPRESSION OF URINE, GRAVEL AND STONE, DYSENTERY, OR BLOODY FLUX, PILES, &c.

THE CHOLERA MORBUS.

THIS disease chiefly appears in the summer or autumn, when the weather is very hot. The patient is harrassed by almost constant vomiting and purging; bile appearing to exist in a considerable proportion, in the matters thus discharged. In general the patient is also distressed with severe griping pains of the bowels, spasmodic contractions of the muscles of the belly, with cramps in the legs and thighs, and sometimes convulsions. It is seldom attended with any fever, though the pulse and respiration are hurried and irregular.

CAUSES. A redundancy and putrid acrimony of the bile; food that easily turns rancid or sour on the stomach; as bacon, butter, cucumbers, cherries, &c. It is sometimes occasioned by strong purges, or vomits, or by taking poisonous substances into the stomach.

REGIMEN. The cure consists in the dilution and evacuation of the bilious matter. Where the disease is only in a moderate degree, the patient strong, and of a middle age, and no great diminution of his strength takes place, little or no danger is to be apprehended. The free use of diluting liquors, as gruel, broths, &c. will generally prove sufficient to procure the return of health.

But when the disease attacks with great violence, occasioning faintings, cold sweats, coldness of the extremities, and a sudden diminution of strength, the patient will be in a most perilous state. Vigorous measures must then be instantly adopted, and the best medical assistance procured: for it speedily brings on the greatest debility, sometimes carrying off the patient in twenty-four hours.

When

When the disease is removed, to prevent a relapse give the bark with opium for some days, and the patient must be cautious with respect to diet, using, for some time, light, easily-digested food; taking, at the same time, gentle, but regular exercise on horse-back.

A DIARRHÆA, OR LOOSENESS.

A DIARRHÆA is a looseness or flux of the belly; or a profuse evacuation of liquid excrements by stool: this is occasioned by the too great quantity of matter thrown into the alimentary canal; and what is discharged has not the appearance of excrements, but is much whiter, and of a thinner consistence.

Great eaters, who do not sufficiently chew their food, gormandizers, and even those who stammer in their speech, are said to be liable to this disease. In slighter cases it is removed without any medicine, or by a dose of rhubarb; but where the matters have acquired a putrid taint, the disorder may be exceedingly protracted and become dangerous.

Among the common causes of this disorder are, obstructed perspiration; eating an immoderate quantity of food, or under done, or not easily digested; too much fruit or sharp acid food; an acrid state of the pancreatic juice or bile, translated gout, or rheumatism, &c.

The *bilious* diarrhæa shews itself by copious stools of a very yellow colour, attended with gripes and heat of the bowels, thirst, bitterness, and dryness of the mouth, yellowness of the tongue, and frequently follows an intermitting or bilious fever. When the fever is gone, the diarrhæa is to be removed by acidulated and cooling drinks, with small doses of nitre.

The *mucous* diarrhæa, besides the matters usually excreted, is attended with a copious dejection of the mucus of the intestines, with great pain; while the patient daily pines away, but without any fever. Persons of all ages are liable to it, and it comes on usually

in the winter time; but it is so obstinate that it will sometimes continue for years. In obstinate loosenesses of this kind; vomits frequently repeated are of the greatest service. It is also very beneficial to keep the body warm, and rub the belly with stimulating ointments; at the same time that astringent clysters, rhubarb, and stomachic medicines are to be exhibited.

Some kinds of looseness are contagious: Sir John Pringle mentions a soldier who laboured under an obstinate diarrhæa, who infected all those that used the same privy with himself. In the looseness which frequently followed a dysentery, the same author tells us that he began the cure by giving a vomit of ipecacuanha, after which he put the patients on a course of astringents. He used a mixture of three drams of extract of logwood, dissolved in an ounce and a half of spirituous cinnamon-water, to which were added seven ounces of common water, and two drams of japonic tincture. Of this the patient took two spoonfuls once in four or five hours, and sometimes also an opiate at bed-time. He recommends the same medicine in obstinate diarrhæas of all kinds.

But when all astringents have failed, Sir John Pringle informs us, that he hath known a cure effected by a milk and farinaceous diet; and he thinks, in all cases, the disorder would be much more easily removed, if the patients could be prevailed upon to abstain entirely from spirituous liquors and animal food. If the milk by itself should turn sour upon the stomach, a third part of lime-water may be added; in one case he found a patient receive more benefit from good butter-milk than from sweet milk. The chief drinks are decoctions of barley, rice, calcined hartshorn, toast and water, or milk and water.

A looseness is not always to be considered as a disease; on the contrary, it is frequently a salutary evacuation, and should not be stopped but when it continues too long, or evidently weakens the patient.

All diarrhæas are diseases of the greatest consequence when improperly treated, or rashly and suddenly stopped by

by opiates and astringents. On the contrary, the whole course of a simple diarrhæa, if nature be left to herself, is attended with no danger. When the most simple, and, in itself, innocent diarrhæa is treated in that manner, the consequences are violent and pungent pains in the abdomen; and, in old people especially, a translation of the matter which nature would have carried off by that soft way, to the head and breast; whence vertigoes and catarrhs are frequently brought on.

The danger of stopping a bilious looseness is still greater; but the greatest danger of all attends the stopping of a critical diarrhæa.

From whatever cause a looseness proceeds, when it is found necessary to check it, the diet should consist of rice boiled with milk, and flavoured with cinnamon; rice-jelly; fago, with red port, and the lighter sorts of meat roasted. The drink may be of water gruel, rice-water, or thin veal broth.

When a looseness proceeds from a cold, or obstructed perspiration, the patient should be kept warm, drink freely of weak diluting liquors, bathe his legs and feet frequently in luke-warm water, and make use of every expedient to restore the perspiration. A flannel shirt, worn next the skin, would contribute much to this salutary purpose.

In a looseness proceeding from excess or repletion, vomits are singularly useful. Half a dram of ipecacuanha in powder will answer this purpose very well. A day or two after the vomit, the same quantity of rhubarb may be taken, and repeated two or three times, if the looseness should continue.

But should a diarrhæa proceed from violent passions or agitations of the mind, vomits would be highly improper. Nor are purges safe, unless they are of the mildest kind, and given in small quantities. Ten or twelve drops of liquid laudanum may be taken in a cup of valerian or penny-royal tea, every eight or ten hours till the symptoms abate. Cheerfulness and tranquillity of mind are to be recommended and promoted under such circumstances.

The author of *Medical Admonitions* says, "One caution is however necessary against the too prompt and indiscriminate employment of purgative medicines, in the outset of the disease. Believing it never to originate but in the irritation occasioned by some matter, which they suppose cannot be too rapidly removed, those who suffer from the disease, generally, have immediate recourse to some active purgative, to expedite the salutary process which they suppose nature to have instituted. But it will frequently happen, that so far from accelerating the cure of this malady, such medicines will, by their additional irritation, prove highly pernicious." *Med. Adm.* 434.

If the disease is periodical, it ought never to be stopped. It is always an effort of nature to carry off some offending matter, which, if retained in the body, might have the most pernicious effects. Children, when teething, are very liable to this kind of looseness, and it is supposed to facilitate the progress of dentition, or cutting of the teeth. When these loose stools prove sour or griping, a tea-spoonful of magnesia alba, with four or five grains of rhubarb, may be given to the child in a little panado, &c. This, if repeated three or four times, generally corrects the acidity.

If the gout, translated from the extremities, occasions a looseness, it should be promoted by gentle doses of rhubarb, or other mild laxatives. The gouty matter should be enticed or invited towards the extremities, by warm fomentations, cataplasms, &c. The perspiration should also be promoted by warm diluting waters; as wine-whey, with spirits of hartshorn, or a few drops of liquid laudanum in it.

To cure a looseness occasioned by worms, medicines must be given to carry off and kill those vermin, as the powder of tin, with purges of rhubarb and calomel. When they are destroyed, a little lime-water, either alone, or with a small quantity of rhubarb infused, will strengthen the bowels, and prevent a future generation of worms.

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The diarrhæa will be distinguished from the dysentery by its being attended with less griping, and tenesmus (or frequent wanting to go to stool); by the stools not being bloody, and by the absence or less degree of fever; and from the cholera morbus by the vomiting and griping being infinitely less, and by the state of the stools.

THE DIABETES.

THIS disease is a discharge of a very large quantity of urine, which is sometimes limpid, sometimes of a yellowish green colour, and sometimes milky. It comes on by slow degrees, and frequently without any previous disorder. The tongue is white and foul, and the patient has an unquenchable thirst, and sometimes a voracious appetite; and the quantity of urine voided often greatly exceeds the whole quantity of both the solids and fluids taken into the body. The urine, when viewed in a certain direction, has a greenish hue.

CAUSES. The causes are exceedingly uncertain and obscure; spasms of the nervous system, debility, and every thing inducing it, but especially strong diuretic medicines, as tincture of cantharides, spirits of turpentine; immoderate venery has also been accused of bringing on the diabetes. It may be brought on by hard drinking; and is often the effect of drinking too great quantities of mineral waters. Or it may proceed from too great a laxity of the organs which secrete the urine, from a thin dissolved state of the blood, &c. It hath, however, occurred in persons where none of all these causes could be suspected; nor have the best physicians been able to determine it. Dissections have only shewn that the kidneys were in an enlarged and relaxed state. In one of Dr. Home's patients who died, they smelled sour; which shewed that the urine peculiar to diabetes came from the kidneys, and was sent directly from the intestines by a retrograde motion of the lymphatics, as some imagine.

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This disease, says Dr. Mead, (quarto edition of his works published in 1762) happens most frequently to those who, without due exercise, indulge themselves with drinking vinous liquors, and then quench their thirst arising from thence by a too great quantity of such as are cooling. In this complaint the urine is thin, pellucid, and without sediment, and is of a sweetish taste; though cases have occurred in which it has not had this taste; the quantity voided is always very great; and if the patients endeavour to retain it, they are afflicted with swellings about the loins, and a sensation of weight and pressure in the hypochondria. It is not only attended with thirst, but also with a hectic heat, a weak but quick pulse, and gradual wasting of the flesh.

He is also of opinion, that the diabetes is a disease of the liver, and not of the secretory vessels of the kidneys, as has been generally thought. See *Monit. and Pract. Medic. c. ix. f. 2.*

Dr. Dobson, of Liverpool, made several experiments, in order to ascertain the nature of this disease; and he considers it as a species of imperfect digestion or assimilation, and to be more of a disease of the system in general than either of the liver or kidneys. On this system he accounts for the different taste of the urine in different subjects, the emaciating effects of this disease, the acid sweats, and the sensation of hunger which attend it. Hence he infers, that the obvious indications of cure are to strengthen the digestive powers, to promote a due sanguification, and to establish a perfect assimilation through the whole œconomy. *Med. Obs. Vol. V. Art. 29.*

SYMPTOMS. The diabetes first shews itself by dryness of the mouth and thirst, white frothy spittle, and the urine in somewhat larger quantity than usual. A heat begins to be perceived in the bowels, which at first is a little pungent, and gradually increases. The thirst continues to augment by degrees, and the patient gradually loses the power of retaining his urine for any length of time. When the urine is retained a little while,

while, there is a swelling of the loins, ilia, and testes; the strength gradually decays; the skin is dry and shrivelled; swellings arise in various parts of the body, but afterwards subside, without relieving the disease in the least.

If this disease is not combated at the beginning, a cure becomes extremely difficult. The aged, and those who drink immoderately, must not expect a cure.

REGIMEN. The patient must avoid every thing that tends to stimulate the urinary passages, or to relax the habit. He should therefore live chiefly on solid food: Of animal substances, shell-fish are to be preferred, as oysters, crabs, &c. Barley-water, in which the root of comfrey is boiled, and lime-water, may be the common drink. The thirst may be quenched with acids, as sorrel, juice of lemon, &c.

Moderate exercise on horseback, and dry friction of the whole body, assist in promoting perspiration; which, when excited, peculiarly tends to divert the discharge through the kidneys. The patient should, by all means, lie upon a hard bed or mattrass, as nothing hurts the kidneys more than lying too soft.

Dr. Mead recommends the following medicine as efficacious in this disorder; take four pints of milk, boil it a little, and turn it with three drams of alum; four ounces of this should be taken two or three times a-day at least. Dr. Brocklesby attributes great efficacy, in a case where he was concerned, to alum-whey, made by boiling from fifty to thirty grains of powdered roche-alum, in a sufficient quantity of new milk from the cow, to afford a full pint of whey; half of which was drank by the patient every night and morning for six weeks. *Med. Obs.* Vol. III. p. 279.

The only hopes of a cure in this distemper are from astringent and strengthening medicines, such as the bark in substance, with small doses of rhubarb; decoction of the bark, with the acid elixir of vitriol; the cold infusion of the bark; Dover's powder; allum-whey, lime-water; antimonials combined with *Tinctura Thebaica*. In seven months, these remedies, judiciously varied, may

make some progress in removing the disease. It is true, however, that in Dr. Home's patients, all these medicines, and many more, were tried without the least good effect; insomuch that he uses this remarkable expression: "Thus these two patients have exhausted all that experience had ever recommended, and almost all that theory could suggest; yet, in both cases, the disease has resisted all the means of cure used."

And Dr. Temple says, "It must be confessed, that we do not yet know a successful method of treating the diabetes: however, until we become better acquainted with the causes and nature of the disease, such remedies as will remove the debility of the system, are thought to be the properest."

The physician last named, however, informs us, that, "A new mode of treatment has been lately recommended, which consists of a total abstinence from all kinds of *vegetables*, and putting the patient on a *diet of animal food and animal fats*, and enjoining a strict confinement. The quantity of animal food should also be as small as the stomach will be satisfied with. This regimen is supposed to be assisted by giving alkalies daily."

To this we may add, that an ingenious physician, who has particularly attended to the nature of this disease, which has hitherto been deemed so difficult of cure, says, "It is now so far understood as to be successfully cured." See, *An Account of Two Cases of Diabetes Mellitus*. By JOHN ROLLO, M. B. Surgeon General, Royal Artillery. Printed for C. DILLY, in the Poultry, 1799.

A disorder called an *Incontinency of Urine*, is very different from a diabetes, as in that the water passes off involuntarily by drops, and does not exceed the usual quantity. It is more troublesome than dangerous. It may be occasioned by a long use of strong diuretics, stimulating medicines injected into the bladder, or injuries occasioned by blows, bruises, &c. or is the effect of a palsy, fever, &c.

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A SUPPRESSION OR RETENTION OF URINE.

A DISTINCTION is made between a retention and a suppression of urine. In a *retention*, the patient hath frequent motions to make water without being able to void it; or if he does pass any, it is in very small quantities, and with difficulty: this is also called a stranguary. In a *suppression*, there is seldom any inclination to discharge any urine; but if there is an inclination, the discharge is sudden.

A suppression of urine may proceed from various causes. Etmuller says, the most frequent is a want of mucus in the urethra. Other causes are small stones or gravel lodging in the urinary passages; a spasm in the neck of the bladder; inflammation in any of these parts; a retention of hardened *faeces* lying in the *rectum*; a defluxion of humours on the neck of the bladder; a tumour or ulcer in the prostate gland; pregnancy; clotted blood in the bladder, a swelling of the hæmorrhoidal veins; too great distention of the bladder, &c.

In some of these cases a catheter is required to remove the obstructing matter, a person skilled in surgery should therefore be called in. A bougee, used by a cautious hand, will sometimes succeed better than the catheter.

In all obstructions of urine, fomentations and evacuants should be resorted to. Bleeding, as far as the strength of the patient will permit, is necessary, especially if there are symptoms of topical inflammation. Bleeding abates the fever, by lessening the force of the circulation; and by relaxing the solids, takes off the stricture upon the vessels which occasioned the obstruction.

After bleeding, fomentations should be used, consisting of warm water alone, or a decoction of mild vegetables. Huxham greatly recommends an emollient bath, prepared of a decoction of marsh-mallow root,

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linseed, fœnugreek-seed, and flowers of camomile, to which may be added a few white poppy-seeds. Hoffman recommends dulcified spirit of nitre as proper to relax the stricture. It is to be taken with suitable distilled waters, and syrup of poppies; or in broth, with a few spoonfuls of oil of sweet almonds. Turpentine clysters are also accounted very serviceable; and may be prepared of ten ounces of decoction of camomile, with half an ounce of turpentine dissolved in the yolk of an egg, with as much honey.

In all obstructions of urine, the body should be kept open; not by strong purgatives, but by emollient clysters, or gentle infusions of senna and manna.

The food must be light, and taken in small quantities. The patient's drink may be weak broth, or decoctions and infusions of marsh-mallow roots, lime-tree buds, &c. A tea-spoonful of the sweet spirit of nitre, or a dram of Castile soap may occasionally be put into his drink; and, when there is no inflammation, he may take gin and water.

In children, a suppression of urine is often relieved by a poultice of raw onions, or of raddishes, applied to the pubes.

Temperance should be strictly observed by those who are subject to a suppression of urine; their diet should be light, and their liquor diluting. Acids, and austere wines, study, and sedentary occupations should be avoided. Sufficient exercise ought not to be omitted.

The temperance and regularity of the late Dr. Fothergill might seem to promise a long life, free from the miseries of disease. He had not, however, that happiness. About two years before his death, he had been afflicted with a disorder which he apprehended, though without foundation, to be an irregular gout. It terminated in a *suppression of urine*, from which he obtained a temporary relief; but it returned again with greater violence, and notwithstanding every effort of the medical gentlemen who attended him (viz. Dr. Warren, Dr. Watson, Dr. Reynolds, and Mr. Pott), put a period to his existence on the 26th of December 1780, in the sixty-ninth

ninth year of his age. On dissection, the disease appeared to have been occasioned by a schirrous enlargement of the prostate, which compressed the neck of the bladder so as to prevent the introduction of a catheter.

THE GRAVEL AND STONE.

WE understand by gravel, small stones that pass from the kidneys through the ureters, &c. in a few days; and by the stone a calculous concretion in the kidneys, or in the urinary bladder, which is too large to pass, or at least without great difficulty. Persons of vigorous constitutions are most subject to this disease.

CAUSES. It is not easy to say what occasions the early particles of the fluids to run together, and form those calculous concretions which are found in different parts of the body, and especially in the organs for straining off and discharging the urine.

The gout and stone are generally supposed to have some affinity, because gouty people are for the most part afflicted with the gravel. But, perhaps, this is chiefly owing to their long confinement, and to the lying on the back, which people who labour under the gout are often obliged to submit to; since the want of exercise, and this posture, will naturally favour the stagnation of gross matters in the kidneys: besides, there are many instances of people severely afflicted with the stone for the greatest part of a long life, who have never had the least attack of the gout.

The stone is generated, according to some authors, of the earthy viscid parts of the blood, hardened, in the course of time, by the heat of the kidneys; much after the same manner as brick is baked in a kiln. Dr. Quincy supposes it generated of the harder parts of the urine, pent up by the straitness of the ducts, and brought into contact and cohesion.

The stone and gravel may proceed from an hereditary disposition; it may be occasioned by high living; by a
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sedentary life; by the use of strong astringent wines; by lying too hot, too soft, or too much upon the back.

It is an opinion which Hippocrates first advanced, and which has been almost universally adopted by his followers, and hath remained till lately uncontroverted, that the stone and gravel are generated by the use of hard water. And from this quality, which the waters of certain springs possess of depositing a large, earthy sediment, either in the aqueducts through which they are conveyed, or in the vessels in which they are boiled or preserved, it was obvious to infer, that in passing through the kidneys, and especially whilst retained in the bladder, they would let fall their grosser particles; which by the continued accumulation of fresh matter, connected by the animal gluten, and compacted by the muscular action of that organ, would in time form a calculus, or stone, sufficiently large to produce a train of the most tormenting symptoms.

This reasoning has been confirmed by facts and experience; for, not to mention the authority of Hippocrates, Dr. Lister has observed, that the inhabitants of Paris are particularly subject to the stone in the bladder. Nicholas de Bleguy has related the history of one who was dissected at Paris, in whom the pylorus, a great part of the duodenum, and the stomach itself, were found incrustated with a stony matter to the thickness of a finger's breadth. And it is well known that the water of the river Seine, with which that city is supplied, is so impregnated with calcareous matter, as to incrustate, and in a short time to choak up the pipes through which it runs.

We are told, by Dr. Percival, that a gentleman of Manchester, who had been long subject to nephritic or gravelly complaints, and often voided small stones, was advised to refrain from his own pump-water, which is uncommonly hard, and to drink constantly the softer water of a neighbouring spring; and that this change alone, without the use of any medicine, rendered the returns of this disorder much less frequent and painful. A lady also, much affected with the gravel, was induced by the perusal of Dr. Percival's Essay, to try

the effect of soft water ; and, by the constant use of it, remained two years entirely free from her disorder.

SYMPTOMS. The symptoms of a stone in the bladder are, frequent desire of making water, which is often suddenly stopped as it flows in a full stream ; pain in the neck of the bladder, upon motion, especially on horseback, or in a carriage in a rough road ; a tenesmus, or inclination to go to stool during the discharge of urine ; uneasiness, and not unfrequently an itching in the anus, and external orifice of the urethra ; a white, thick, copious, stinking, mucous sediment in the urine ; bloody urine ; passing the urine more easily when lying than in an erect posture. It may also be discovered from sounding or searching with the catheter.

Small stones or gravel in the kidneys occasion pain in the loins, sickness, vomiting, and sometimes bloody urine. When the stone descends into the ureter, and is too large to pass easily along, all the above symptoms are increased ; the pain extends towards the bladder ; one of the testicles is drawn upwards, the urine is obstructed ; and sometimes a numbness happens in one or both thighs.

REGIMEN. The diet should be light, and of a laxative kind, exercise moderate, but as constantly as the strength, &c. will admit of. The water that the patient drinks, and all the liquids of a watery kind, must be from such supplies as are absolutely free from all mineral impregnations.

Aliment of a windy or heating nature must be avoided, as salt meats, sour fruits, &c. Artichokes, asparagus, lettuce, spinach, parsley, succory, purslane, potatoes, turnips, carrots, and radishes, are salutary food. Onions, leeks, and celery, are, in this case, reckoned medicinal.

The proper drinks are whey, barley-water, milk and water, butter-milk ; decoctions of the roots of marsh-mallows, parsley, liquorice, or of other mild mucilaginous vegetables, as linseed, lime-tree buds, or leaves, &c. Gin and water, (not too strong) may be drank, especially if the patient has been accustomed to strongish liquors.

Dr.

Dr. Hales observes that onion juice seems to have considerable efficacy in dissolving the calculus; and where frequently eaten, should, if not waste, at least prevent its increase. Dr. Lobb says he found leeks more effectual solvents than onions.

Pitcairn recommends the use of milk, for common drink, in the stone, with barley-water and a little sugar. He adds that he cannot give any better reason why milk is serviceable to nephritics, than because the same is always found serviceable to gouty persons. The symptoms of both the diseases are the same, excepting what relates to the parts affected. Dr. Mead allows either small wine and water, or new soft ale; which, he says, will be rendered better and wholsomer, if ground-ivy leaves be infused in it, while it is working: mead is also a proper drink, for honey is an excellent diuretic. A spoonful of honey, in a glass or two of the infusion of marsh-mallow-roots, is an admirable cleanser of the kidneys, if constantly used. The wines ought to be the softest and smoothest that can be had, and the lightest, clearest river or running-water is preferable to any other.

Out of the fit, the patient should use moderate exercise, without fatigue, or any violent motion, which is apt to occasion bloody urine. Persons who have an hereditary tendency to this disease, should never indulge themselves in a sedentary life. Much depends, in the way of prevention, when the first symptoms of gravel, &c. appear, on a proper regimen of diet, and the use of sufficient exercise.

CURE. If a stone happens to be smooth, and of a roundish form, it may lie in the bladder and acquire considerable bulk before it can be perceived by the patient; but when it is angular, or has a rugged surface, even though it may be small, yet it seldom fails to occasion pain, and bloody urine, or the discharge of a slimy fluid, with inclination to stool, and difficulty in making water.

There have been various attempts and pretences made to dissolve the stone. The things which have
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been found most effectual are those that powerfully absorb the fixed air from bodies, and at the same time readily combining with oils, render them miscible, or dispose them to mix with water. There is scarce any earthy substance that abounds more in oil, and also contains such a quantity of fixed air as the human calculus. Hence it is that the caustic fixed alkaline salt is such a powerful dissolvent of the stone; but this being of a very acrid nature, it requires to be well sheathed by means of some gelatinous or mucilaginous vehicle; as veal-broth, new milk, linseed-tea, a solution of gum arabic, or a decoction of marsh-mallow roots. Veal-broth is as convenient as any for this purpose, and accordingly it is used by those who make a secret of the caustic alkali as a vehicle for the soap-lees.

Mr. Blackrie, who has taken much pains in the enquiry, has proved very satisfactorily that Chittick's nostrum is no other than soap-lees given in veal-broth, which the patients send every day to the doctor, who returns it mixed up with the medicine, in a close vessel secured by a lock.

The caustic alkali may be prepared by mixing two parts of quick-lime with one of pot-ashes, and suffering them to stand till the lixivium or lye be formed, which must be carefully filtrated before it be used. If the solution does not happen readily, a small quantity of water may be added to the mixture.

It is not every case, however, that either requires or will bear a course of the caustic alkali. Some calculi, or concretions, are of that soft and friable nature, that they will dissolve even in common water; and there are cases wherein it appears that the constant use of some very simple decoction or infusion of an insignificant vegetable has brought away large quantities of earthy matter, in flakes which apparently have been united together in layers to form a stone.

Dr. Macbride assures us, " that a decoction of raw
" coffee, only thirty berries in a quart of water, boiled
" till it acquired a deep greenish colour, taken morning
" and evening to the quantity of eight or ten ounces,
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“ with ten drops of sweet spirit of nitre, had the powerful effect of bringing away, in the course of two months, as much earthy matter in flakes as filled a large tea-cup. The patient was far advanced in years; and, before he began this decoction, had been reduced to great extremities by the continuance of pain and other distressing symptoms.”

An infusion of the seeds of *daucus sylvestris*, or wild carrot, sweetened with honey, is another simple and approved remedy; and has been found to give considerable ease in cases where the stomach could not bear any thing of an acrid nature. The *uva ursi*, recommended by the late very celebrated De Haen, has been found of singular service. It is generally taken in powder from half a dram to a dram, two or three times a-day. But where the stomach will bear it, and there is no ulceration in the case, either the soap-lees in new milk, or veal-broth, or soap-pills, and lime-water, will bid fairest to do effectual service; either by dissolving the stony concretions, or at least rendering the sharp points and rugged surface less capable of injuring the sensible membranes of the parts where these bodies lodge, or happen to pass through.

In cases which will not admit us to think of dissolving the stony concretions, and where the only scheme is to palliate and procure ease from time to time, little more can be done than to keep the bowels open occasionally by some gentle purge, and wash off as much of the loose gravelly matter and slime as can be removed by such mild diuretic infusions and decoctions as shall be found to pass freely, and sit well on the stomach.

Persons afflicted with the stone should be careful in respect of their diet, and studiously avoid all heavy and flatulent food, as well as high sauces that are apt to turn rancid. For the same reason, butter and acids are to be avoided; for these often create heart-burning, and every thing that offends the stomach raises the nephritic or gravelly pain.

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As a preventive of the gravel, &c. Dr. Hales proposes for the patients, at all times, to lie with the head and upper parts of the body considerably higher than the lower; for thus the urine is not detained so long in the kidneys as to allow its tartarous parts to attach each other.

Cutting for the stone in the bladder, is an ancient and well-known operation, and often crowned with success: but a description of this operation belongs to surgery: it may be necessary, however, to remark, that a surgeon should not proceed in such a business, till he, and his assistants are perfectly satisfied, from actually feeling the stone, that there is one in the bladder; because it has sometimes happened, that when the incision has been made, no stone could be found; and the patient having died in consequence of the operation, and the body being opened, it has appeared that the symptoms which occasioned the belief of a stone in the bladder, arose from some other cause.

In what is usually termed a fit of the gravel, which is commonly occasioned by a stone sticking in the ureter or some part of the urinary passages, the patient should be bled, and have warm fomentations applied to the part affected; emollient clysters should be administered; the drink should be diluting mucilaginous liquors.

Dr. Whyte recommends to those who have frequent fits of gravel in the kidneys, but no stone in the bladder, to drink a pint of oyster or cockle-shell lime water, every morning, about two or three hours before breakfast. The doctor indeed observes, that though this quantity might be too small to have any sensible effect in dissolving a stone in the bladder, yet it may probably prevent its growth.

Bloody urine is sometimes a symptom attending the gravel, in which case a dose of manna may be taken as a purge, in a quart of milk whey: this may be taken at several draughts. To quicken its operation, and render it easier in the stomach, a slice of lemon may now and then be sucked. This may be repeated twice

in a week, for it both eases the pain, and moderates the discharge of blood. After its operation, let a dose of opium be taken at bed-time. If the bloody urine is from the bladder, and is attended with spasms there, or an ulcer, warm external applications are useful, such as bladders of warm water laid just above the pubes.

THE DYSENTERY, OR BLOODY FLUX.

THIS disease has obtained the name of bloody flux, because blood sometimes appears; but this is not a common symptom, nor essential to the disease. Dr. Akenfide calls the dysentery a rheumatism in the bowels, and says that a dysentery and rheumatism is the same. It prevails in the spring and autumn, and is most common in marshy countries, where after a hot and dry summer, it is apt to become epidemic.

CAUSES. The dysentery may be occasioned by any thing that obstructs the perspiration, or renders the humours putrid, as unwholesome diet, night-air, damp beds, wet clothes, &c. But it is most generally communicated by infection; and indeed it is now the prevailing opinion, that a specific contagion is always the remote cause of this disease; and by the propagation of such contagion, independent of cold or other exciting causes, it becomes epidemic in camps, gaols, hospitals, and ships.

It often happens that this disease is permitted to exist for some time, before the patient, who supposes it to be a common looseness, becomes acquainted with the nature of his complaint; in consequence of which it acquires great inveteracy, and so far weakens the patient as to render the cure very difficult to be accomplished.

SYMPTOMS. The dysentery is a disease in which the patient has frequent stools, accompanied with much griping, and followed by a tenesmus, or constant inclination to go to stool. The stools, though frequent, are generally in small quantity, and the matter voided is chiefly mucous, sometimes mixed with blood. At the
same

same time the natural fæces seldom appear, and when they do it is generally in a compact and hardened form. It begins like other fevers, with chillness, loss of strength, great thirst, a quick pulse, and an inclination to vomit. The stools vary in colour and quality in the course of the disease; they are mucous, frothy, or mixed more or less with blood, and sometimes pure blood is voided. At other times they are purulent, (consisting of pus or matter) which is highly offensive, and with the discharge there is frequently a mixture of films or filaments resembling bits of skin or thread.

Sometimes the belly is costive, with an unusual flatulence or windiness in the bowels. Sometimes, though more rarely, some degree of diarrhæa is the first appearance. In most cases the disease begins with griping, and a frequent inclination to go to stool. In indulging this, little is voided, but some tenesmus attends it; by degrees the stool becomes more frequent, the griping more severe, and the tenesmus more considerable. With these symptoms there is a loss of appetite; and frequently sickness, nausea, and vomiting, also affecting the patient.

At the same time there is always more or less of fever present. It is sometimes of the remittent kind, and observes a tertian period: sometimes it is inflammatory, and very often of a putrid kind. These febrile states continue to accompany the disease during its whole course, especially when it terminates soon in a fatal manner. In other cases, the febrile state almost entirely disappears, while the other symptoms of dysentery remain for a long time after.

Accompanied with these circumstances, the disease proceeds for a longer or a shorter time. When the fever attending it is of a violent inflammatory kind, and more especially when it is of a very putrid nature, the disease often terminates fatally in a very few days, with all the marks of a supervening or sudden gangrene. When the febrile state is more moderate, or disappears altogether, the disease is often protracted for weeks, and even months; but even then, after a various duration,

tion, it often terminates fatally, and generally in consequence of a return and considerable aggravation of the inflammatory and putrid states. In some cases the disease ceases spontaneously; the frequency of stools, the griping, and tenesmus gradually diminishing, while natural stools return. In other cases, the disease, with moderate symptoms, continues long, and ends in a diarrhæa.

This disease may be distinguished from a diarrhæa or looseness, by the acute pain of the bowels, and the blood which is generally to be observed in the stools; and from the *cholera morbus* by its not being attended with such violent and frequent fits of vomiting, &c.

When this disease attacks the aged, the delicate, or such as have suffered much with the gout, the scurvy, or other lingering diseases, it frequently proves fatal. Vomiting and hiccups proclaim great danger, as they shew an inflammation of the stomach. If the stools are green or black, or are highly offensive to the smell, the danger is very great, as it is evidently of the putrid kind. Coldness of the extremities, a feeble pulse, with difficulty of swallowing, and convulsions, are fatal signs.

REGIMEN. The air should be kept as pure as possible, and moderately warm: cleanliness is absolutely necessary, as well for the recovery of the patient, as for the safety of those who attend him. In this and all other contagious diseases, the infection spreads, and the danger is increased, by the neglect of cleanliness. The linen, and every thing about the patient should be frequently changed. Instead of suffering the excrements to remain in the chamber, they should be instantly removed and buried under ground. The apartment should frequently be sprinkled with some strong acid, as vinegar, juice of lemon, &c.

Diseases of this nature having a tendency to sink and depress the spirits, care must be taken to console and cheer the patient, by encouraging him with the probability of a cure. The fears and apprehensions of the sick have often rendered putrid diseases mortal. A flannel waistcoat, worn next the skin, in a dysentery, has

has often a very good effect, as it promotes the perspiration, without over-heating the body. Great caution is necessary, however, to prevent catching cold on leaving it off.

The patient must abstain from fish, flesh, and every thing that has a tendency to turn putrid or rancid on the stomach. Apples boiled in milk, water pap, and plain light pudding are very proper. A kind of gelatinous, or jelly broth, has been recommended, as answering the double purposes of food and medicine, for a dysentery which has not been of a putrid nature.

Dr. Rutherford recommends the following kind of food as very proper in a dysentery, and passes many high encomiums on it. Boil a few handfuls of fine flour, tied up tight in a cloth, for six or seven hours, till it becomes as hard as starch. Two or three table-spoonfuls of this may be grated down, and boiled in such a quantity of new milk and water as to be of the thickness of pap. This may be sweetened to the taste of the patient, and taken as his common food.

The most proper drink in a dysentery is whey; which alone has often effected a cure. When that cannot be procured, barley-water, sharpened with cream of tartar, may be drank, or a decoction of barley and tamarinds; two ounces of barley, and one of tamarinds, may be boiled in two quarts of water to one. Camomile tea, if the stomach will bear it, is very proper. It not only strengthens the stomach, but tends to prevent a mortification of the bowels. Warm water-gruel, or water wherein hot iron has been frequently quenched, may also be drank occasionally.

CURE. The most eminent of our late practitioners, and of the greatest experience in this disease, seem to be of opinion, that it is to be cured most effectually by purging, assiduously employed. The means may be various; but the most gentle laxatives are usually sufficient; and, as the medicine must be frequently repeated, these are the safest, the more especially as an inflammatory state so frequently accompanies the disease. Whatever laxatives produce an evacuation of natural
feces,

faeces, and a consequent remission of the symptoms, will be sufficient to perform a cure. But if the gentle laxatives shall not produce the evacuation now mentioned, somewhat more powerful must be employed; and nothing is more proper or convenient than tartar emetic, given in small doses, and at such intervals as may determine their operation to be chiefly by stool. Rhubarb, so often prescribed in this disease, seems a very improper medicine.

Vomiting has been held a principal remedy in the dysentery, and may be usefully employed in the beginning of the disease, with a view to both the state of the stomach and of the fever: but it is not necessary to repeat it often; and unless the emetics employed operate also by stool, they are of little service. Ipecacuanha is by no means a specific; and it proves only useful when so managed as to operate chiefly by stool.

For relieving the constriction of the colon, and evacuating the retained faeces, clysters may sometimes be useful, but they are seldom so effectual as laxatives, given by the mouth; and acrid clysters, if they are not effectual in evacuating the colon, may prove hurtful by stimulating the rectum too much.

The frequent and severe griping attending this disease, leads almost necessarily to the use of opiates; and they are very effectual for the purpose of relieving from the gripes; but, by occasioning an interruption of the action of the small guts, they favour the constriction of the colon, and thereby aggravate the disease.

Those who have been cured of this disease frequently experience a relapse, to prevent which great caution is required with respect to diet. The patient should avoid all fermented liquors, and particularly malt liquors; now and then a glass of good wine may nevertheless be allowed; but he must abstain from all animal food, and live principally on milk and vegetables.

Gentle exercise and wholesome air are also of importance. Bitters infused in wine or brandy, will be found beneficial; and the patient may drink, twice a-day, a gill of lime-water, mixed with an equal quantity of new milk.

When

When this disease is complicated with an intermittent, and is protracted from that circumstance chiefly, it is to be treated as an intermittent, by administering the Peruvian bark, which in the earlier periods of the disease is hardly to be admitted.

Diuretics, in some instances, have been useful; but are not to be attempted, except where all other means fail, or when they have been efficacious in former instances.

When the dysenteric symptoms are removed, and a diarrhæa remains, gentle astringents may then be ventured upon.

THE PILES.

THE discharge of blood from small tumours or swellings on the verge of the anus constitutes what is called the hæmorrhoids or piles. They are distinguished into the *external* and *internal*, according to the situation of the tumours, within or without the anus. Sometimes, however, these tumours appear without discharging any blood; and in this case they are called the *blind piles*. Sometimes the disease appears without the verge of the anus in distinct separate tumours; but frequently only one tumid or swelling ring appears, seeming as it were the anus pushed out of the body. Sometimes these tumours appear without any previous disorder of the body; but more frequently, before the blood begins to flow, and sometimes, even before the tumours are formed, various affections are perceived in different parts of the body; as head-ach, vertigo, stupor, difficulty of breathing, sickness, colic pains, pain of the back and loins, and frequently a considerable degree of fever; while, with these symptoms, there is a sense of fulness, heat, itching, and pain in and about the anus. Sometimes the disease is preceded by a serous or watery discharge from the anus; and sometimes this serous discharge, accompanied with swelling, seems to come instead of the discharge of blood, and to relieve

the above-mentioned disorders of the system. This ferous disorder hath therefore been named the white piles.

CAUSES. The causes are, the frequent voiding of hard and bulky fæces, which, by their long stagnation in the rectum, and especially when voided, must necessarily press upon the veins of it, and interrupt the course of the blood in them. For this reason the disease so frequently happens to those who are habitually costive. The piles may be occasioned by an excess of blood, by strong aloetic purges, high-seasoned food, drinking large quantities of sweet wines, the neglect of bleeding, or other customary evacuations, or any thing which occasions costiveness.

The production of piles is particularly illustrated by this, that pregnant women are frequently affected with the disease. This is to be accounted for, partly by the pressure of the uterus upon the rectum, and partly by the costive habit to which pregnant women are liable. Many instances of piles happen for the first time during the state of pregnancy: and there are few women, who have borne children, that are afterwards entirely free from piles. Purgatives, especially those of the more acrid kind, and particularly aloetics, are apt to produce the piles, when frequently used; and as they stimulate particularly the great guts, they may be justly reckoned among the exciting causes of this disease.

In this disease the quantity of blood discharged is different upon different occasions. Sometimes it flows only when the person goes to stool, and commonly follows the discharge of fæces. In other cases it flows without any discharge of fæces, when it is commonly in larger quantity. These considerable discharges occur especially to persons who have been frequently liable to the disease. They often induce great debility, and frequently a dropsy. Sometimes the tumours and discharges of blood in this disease recur exactly at stated periods. In the decline of life it frequently happens that the hæmorrhoidal flux, formerly frequent, ceases to flow, and in that case it generally happens that the
persons

persons are affected with apoplexy or palsy. Sometimes the tumours are affected with inflammation, which ends in suppuration; and gives occasion to the formation of fistulous ulcers in those parts.

Though the hæmorrhoids are commonly esteemed a topical disease, they may, by frequent repetition, become habitual and connected with the whole system. It is to be particularly observed, that when the hæmorrhoidal disease has either been originally, or has become a systematic affection, it then acquires a particular connection with the stomach; so that certain affections of the stomach excite the hæmorrhoidal disease, and certain states of this disease excite the disorders of the stomach.

It hath been an almost universally received opinion, that the hæmorrhoidal flux is a salutary evacuation, which prevents many diseases that otherwise would have happened; and that it even contributes to give long life: and as this opinion hath been strenuously adopted by Dr. Stahl, it hath had a very considerable influence on the practice of physic in Germany. But we never can expect to reap much benefit from this flux, which at first is purely topical; and, granting that it should become habitual, it is never proper to be encouraged. It is a nasty disagreeable disease; ready to go to excess, and thereby to prove hurtful, and sometimes even fatal. At best it is liable to accidents, and thus to unhappy consequences. Even the first approaches of the disease are to be guarded against; and though it should have proceeded for some time, it ought always to be moderated.

REGIMEN AND CURE. When any evident cause for this disease is perceived, we ought immediately to attempt a removal of that cause. One of the most frequent remote causes is an habitual costiveness, which must be obviated by a proper diet: or if the management of diet be not effectual, the belly must be kept open by medicines which may prove gently laxative, without irritating the rectum. In most cases it will be of advantage to acquire a habit with regard to time, and to observe it exactly.

When the disease has frequently returned from neglect, and is thus in some measure established, it will be particularly proper to guard against a plethoric state of the body; and therefore to avoid a sedentary life, full diet, and intemperance in the use of strong liquor, which in all cases of this disease is of the most pernicious consequence.

Exercise is of great service in obviating and removing a plethoric state of the body; but upon occasion of the hæmorrhoidal flux, when this is immediately to come on, both walking and riding are to be avoided. At other times these modes of exercise may be very properly used.

Another method of removing plethora is cold-bathing; but herein caution must be observed. When the flux is approaching, it may be dangerous to divert it; but during the intervals of the disease, cold-bathing may be employed with safety and advantage. When the flux has actually come on, it should be moderated as much as possible, by causing the patient to lie in a horizontal posture on a hard bed; by using a cool diet, and avoiding external heat.

In case of excessive bleeding, we are on all occasions to endeavour to moderate the flux, even where the disease has occurred as a critical discharge; for if the primary disease shall be entirely and radically cured, the preventing any return of the hæmorrhoids seems entirely safe and proper. It is only when the disease arises from a plethoric habit, and from a stagnation of blood in the hypochondriac region, or when, though originally topical, it hath by frequent repetition become habitual, and has thereby acquired a connection with the system, that any doubt can arise about curing it entirely.

In any of these cases, however, it will be proper to moderate the bleeding, lest by its continuance or repetition, the plethoric state of the body, and the particular determination of the blood into the hæmorrhoidal vessels, be increased, and the return of the disease be too much favoured. In all cases of excessive bleeding, or any approach to it, astringents both internal and external

ternal, may be safely and properly applied, not indeed to induce an immediate and total suppression, but to moderate the hæmorrhage, and by degrees to suppress it altogether; while, at the same time, measures are taken for removing the necessity of its recurrence or return.

In the blind piles, bleeding is generally of use. The diet should be light and thin, and the drink cool and diluting: the body should also be kept open; which may be done by small doses of the flowers of brimstone, and cream of tartar: mix equal quantities of these, and take a tea-spoonful two or three times a-day, or oftener if necessary. Or mix an ounce of the flowers of brimstone, and half an ounce of purified nitre, with three or four ounces of the lenitive electuary, and take a tea-spoonful of it two or three times a-day.

The blind piles appear in the form of tubercles, or small tumours, of different sizes, from that of a pea up to a pullet's egg. They are distinguished from other tubercles about the anus, by their colour and resistance to the touch, for they appear livid or black, and, when pressed by the finger, feel like a bladder filled with water; which circumstances are not observed in other tubercles in the anus, or about it: some of these are soft and not painful, others are hard, painful, and inflamed. This kind of piles generally appear in costive habits that are plethoric, and in women that are pregnant, or after difficult labour, or suppressed menses. If these blind piles burst, they form the open or bleeding piles. The blind piles sometimes cause such a spasm in the anus as renders sitting difficult, and the administration of a clyster impossible; and sometimes give rise to a fistula.

When the piles are very painful and swelled, but discharge nothing, the patient should sit over the steams of hot water. He may also apply a linen cloth, dipped in warm spirits of wine, to the part, or poultices made of bread and milk. Should not these produce a discharge, and the piles appear large, let leaches be applied as near them as possible, or even upon them, if they

they will fix there. When the leaches will not fix, the piles may be opened with a lancet. The operation is very safe and easy.

Ointments, for external applications, are of no service in the piles, except to keep the part moist, which may be as effectually done by a soft poultice, or an emolient cataplasm, or soft plaster. If the pain, however, is very great, a liniment may be applied, made of two ounces of emollient ointment, and half an ounce of liquid laudanum, beat up with the yolk of an egg.

When the bleeding piles are periodical, and return at regular periods, as once a month, once in three weeks, &c. they are to be considered as a salutary discharge, and must not be suppressed or stopped.

PART XI.

OF HÆMORRHAGES, OR DISCHARGES OF BLOOD OF DIFFERENT KINDS.

HÆMORRHAGES, OR INVOLUNTARY DISCHARGES OF BLOOD.

SPONTANEOUS discharges of blood frequently happen from various parts of the human body; but so far from being always dangerous, they are sometimes salutary. When such discharges are critical, which is often the case in fevers, they ought not to be stopped. Nor is it proper at any time to stop them, till it continues so long, and flows in such quantity, as to endanger the patient's life or constitution.

Periodical discharges of blood, from whatever part they proceed, must not be stopped: they are the efforts of nature to relieve herself; and fatal diseases have often been the consequence of obstructing them. Sometimes indeed it may be necessary to check their violence; but in this the utmost care and prudence is required.

These fluxes may proceed from different, and sometimes opposite causes; a particular construction of the body,

body, or sanguine temperament; external heat; sudden and considerable diminution of the weight of the atmosphere; whatever increases the force of the circulation, such as violent exercise, violent efforts, anger, and other violent passions; violent exercise of particular parts; ligatures occasioning accumulations in different parts of the body; cold externally applied, as changing the distribution of the blood, and determining it in greater quantities into the internal parts.

“Those who lead sedentary lives,” says the editor of *Medical Admonitions*, “indulging much, at the same time, in highly nourishing and stimulating food, can hardly escape such a preternatural fulness of the system, as is likely to be productive of hæmorrhage; since the evacuations not being proportioned to the quantity of nutritious matter taken in, a due equilibrium cannot be observed between the quantity of the circulating fluids, and the solids which contain them. The diminution or suppression of accustomed evacuations, whether of those which are natural, or of those which have been produced by art or previous disease, will also considerably contribute to the formation of that diseased state of the system in which hæmorrhage is likely to occur. In this way much injury is often occasioned by the frequent bleedings which are sometimes had recourse to, when hæmorrhage has once occurred; and which actually promote that state of the system they were intended to prevent.” *Med. Adm.* 284.

The same author farther observes, “If the system has once suffered a loss of blood, by accident, by art, or by a spontaneous effusion, that quantity is not only quickly restored, but fresh blood is formed so fast, that a preternatural fulness, or plethora, is very soon produced, which is frequently succeeded by a return of the bleeding. This is again, in like manner, followed by a rapid restoration of blood, fulness, and hæmorrhage. The alterations of evacuation and repletion being thus repeated, a disposition to hæmorrhage

“ hage is, agreeable to a certain law of the animal
 “ œconomy occasioned, and the disease of course ren-
 “ dered more difficult of removal. Nor is this all, for
 “ in proportion to the length of the continuance and
 “ frequency of recurrence of hæmorrhage, will be the
 “ danger of its occasioning other diseases, either by its
 “ continuance or suppression.”

Analogous to this doctrine are the observations of the ingenious Dr. Cullen. His reasons for supposing that hæmorrhage should, in general, be avoided, are these:—1st. Because it does not always happen in parts where it is safe. 2dly. Because often, while it does relieve a plethoric state, it may, at the same time, induce a very dangerous disease. 3dly. Because it may often go to excess, and either endanger life, or induce a dangerous infirmity. And, lastly, Because it has a tendency to increase the plethoric state it was meant to relieve; to occasion its own recurrence; and thereby to induce a habit, which, if left to the precarious and unequal operation of nature, may, from the frequent errors of this, be attended with much danger. *Cullen's First Lines*, II. 301.

Repetitions of hæmorrhage may produce such a state of the system as will probably occasion wasting of the body, dropsy, or some other disease which may not easily be removed. But this point will be further illustrated when speaking of hæmorrhage from particular parts.

A plethoric state is to be prevented or removed by lessening the quantity of food, or by taking such as is less nutritious, and by increasing the exercise. When an hæmorrhage comes on, if it continues so long, and flows in such quantity as to endanger the patient's life or constitution, it must be suppressed by a strict observance of the antiphlogistic regimen. Heat is to be particularly guarded against: the patient must be exposed to the cold air, and have cold liquids to drink. Refrigerant, or cooling medicines will be proper, and the vegetable acids. Apply cold water, cold substances, and astringents externally to the parts. Faint-
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ing is not to be prevented, as it is powerful in stopping hæmorrhage. Vomiting is also a powerful means of stopping hæmorrhages, as it greatly diminishes the action of the vascular system. The patients should be kept extremely cold. Dr. Hunter recommends to leave all internal hæmorrhages to nature; and says that life is safe if the patient is permitted to faint.

BLEEDING AT THE NOSE.

IN many instances the loss of blood by the nose is salutary, as in the vertigo, head-ach, epilepsy, dimness of sight, &c. Those who in childhood often bleed at the nose, become, when older, subject to disorders in the breast, the rheumatism, piles, nephritic, or colic pains. Periodical bleedings at the nose should not be stopped, at least before the patient has been much weakened by it, lest an apoplexy, or a lethargy should be the consequence.

Bleeding at the nose in febrile or inflammatory diseases, especially when preceded by pain in the head, flushed countenance, and redness of the eyes, will generally be found critical and salutary; and therefore should not be checked, till it becomes so profuse that the patient is in danger of being too much exhausted. It is beneficial in inflammations of the liver and spleen, and often in the gout and rheumatism. A voluntary discharge of blood from the nose, will, in all cases where bleeding is necessary, be more effectual than taking away an equal quantity by opening a vein. A bleeding should never be stopped, without considering whether that bleeding be a disease, or the cure of a disease.

When it happens to persons in health, who are full of blood, it should not be suddenly stopped, especially if the symptoms of plethora have preceded it. Such a procedure would be at the risk of the patient's life.

Whenever bleeding at the nose relieves any bad symptoms, and does not in any degree endanger the

patient's life, it should not be stopped. But when it returns frequently; or continues till the pulse becomes low, the extremities cold, and the lips pale, it must immediately be stopped, especially if the patient complains of being sick or faint.

Where there is nothing to forbid the suppression of the bleeding, cloths dipped in cold water, vinegar, or spirits, may be frequently applied to the nose and face; the body should be kept erect, and exposed to the free access of cold air. If these should not effectually answer the purpose, a piece of lint, in the form of a cone, may be forced up the nostrils, so as to press on the orifice of the ruptured vessel. If this fails, the lint may be rolled in flour, previous to its introduction. Should this method also fail, the lint may again be introduced, with the addition of allum, finely powdered. The quantity of allum to be about a fourth of the flour. Every irritation is to be avoided, such as blowing the nose, speaking, or moving.

Garters and ligatures, as recommended by a popular writer, are manifestly liable to objections.

Immersing the genitals in the coldest water that can be procured, will often instantly stop a bleeding at the nose.

Internal medicines are not often used in these cases, as they have seldom time to operate. The patient, however, may be furnished with half an ounce of Glauber's salt, and half an ounce of manna, dissolved in four or five ounces of barley-water. This may be taken at a draught, and repeated in a few hours, if it should not operate. Ten or twelve grains of nitre may be taken in a glass of cold water and vinegar, every hour, or oftener, if the stomach will bear it. If a stronger medicine is required, a tea-cupful of the tincture of roses, with twenty-five drops of the weak spirit of vitriol, may be taken hourly. When these things are not to be procured, water, with a little common salt in it, or equal parts of water and vinegar may be substituted.

When the bleeding is stopped, the patient must be kept easy and quiet, and not permitted to lie with his
head

head low. He must forbear picking his nose, or taking away the tents of clotted blood. However troublesome, they should be suffered to fall off of their own accord.

Persons subject to bleeding at the nose should often bathe their feet in warm water, and keep them warm and dry. They should accustom themselves to keep their body in an erect posture. If they have too much blood, a vegetable diet, and occasionally a cooling purge, will be found very efficacious.

Should the disease proceed from a thin dissolved state of the blood, the diet should be rich and nourishing, as strong broths, jellies, &c.

When a bleeding at the nose happens to those who are advanced in years, the nicest judgment is required. As it often prevents an attack of palsy, apoplexy, &c. it would be highly improper to check the discharge at its first appearance. On the contrary, it is often necessary to have recourse to bleeding, from the arms, and to employ other means to diminish the general fulness, and to take off the determination to the head.

Moderate bleeding of the nose in young people, often ceases spontaneously; or yields to the application of cold water to the nose and surrounding parts. The application of any very cold substance to any part of the surface of the body, will have a similar effect; as a key, or any cold piece of metal, put down the back, next to the skin. It occasions a shivering, soon after which the bleeding generally stops.

SPITTING OF BLOOD.

PERSONS of a certain age, viz. from sixteen to thirty-five, with narrow chest, prominent shoulders, a delicate slender form, long neck, and great sensibility and irritability, are most liable to this disease. Passionate people, and those who have been subject to bleeding at the nose when young, are very liable to this disease.

It may proceed from excess of blood, a weakness of the lungs, or a bad conformation of the breast. Excessive drinking, running, violent exercise, singing, or speaking aloud, will also occasion it. This disease may also be the consequence of a wound or wounds in the lungs, or the obstruction of any customary evacuation; or of the neglect of bleeding or purging at the usual seasons. When it is the effect of a long and a violent cough, it is often the forerunner of a consumption.

Spitting of blood is sometimes a primary disease, and sometimes only a symptom in some other disease. It is generally useful in pleurifies, peripneumonies, and sundry other fevers; but in a dropsy, scurvy, or consumption, it denotes an ulcer in the lungs. In the robust, a spitting of blood is not very dangerous; but in the tender and feeble, the cure is very difficult. If the blood proceeds from an ulcer in the lungs, it is generally fatal.

SYMPTOMS. A spitting of blood is generally preceded by a frequent cough, a sense of tightness, weight, and anxiety in the chest. Sometimes it is ushered in with a coldness of the extremities, great lassitude, and a general shivering. If it proceeds from the stomach, it will be known by the attendant vomiting, and by the quantity and colour of the blood, which is darker and grumous, and mixed more or less with other contents of the stomach. Some judgment indeed is necessary to distinguish from what part the blood proceeds which passes from the mouth; since it may be derived from the lungs, the stomach, the mouth, the back part of the nostrils, or the upper part of the throat.

When the discharge comes on without any previous notice, it is generally the consequence of some great exertion of the lungs, as violent coughing, &c. When this happens to be the case, and the body is free from disease, the bleeding will sometimes cease in a short time. The same happy termination may reasonably be expected when the disease is even the result of a plethoric habit; but if a disposition to consumption previously existed in the habit, there will be reason to expect the arrival of that disease.

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Where the disease terminates favourably, the quantity of blood discharged gradually becomes less, the breathing remains easy, and the cough soon ceases. The spit may however remain tinged for a time, but at length resumes its proper and natural appearance.

REGIMEN. The apartment should be cool, and the patient kept entirely still: any exertion of the lungs, as in loud speaking, reading, &c. must be avoided. Whatever heats the body, or quickens the circulation, increases the danger. It is also necessary that the mind should be soothed, and that nothing should be said or done that might excite the passions. Animal food, and even broths, must be strictly avoided, and the diet should consist of only such things as afford but little nourishment, as rice boiled with milk, panado, &c. and even these only in small quantities.

Every thing should be drank cold, and in small quantities at a time. All strong liquors must be avoided: the beverage should be barley-water, or toast and water, acidulated with the juice of lemon or not, to the inclination of the patient.

Sailing, if the patient is not liable to sea-sickness, will be very serviceable; and travelling in a carriage, on smooth roads, or swinging; immersion in, or sprinkling with cold water. Absolute quiet of body and mind must be strictly enjoined, and continued for a considerable time after the hæmorrhage has ceased, with such food as is light, cooling, and easily digested, taken in small quantities.

CURE. Hæmorrhages are salutary when no inconvenience is observed from them, for then the habit is one way or other relieved. These, like the other involuntary discharges of blood, ought not to be suddenly stopped by astringent medicines, lest more mischief should arise from them than from permitting the discharges to proceed. But if they should proceed so far as to endanger the life of the patient, proper means must be employed for restraining them.

Medicines need not be given before the patient seems weakened by his complaint; and then, in proportion to

to his strength, bleeding in the arm may be repeated. When the constitution will admit of this operation, the discharges by it should be copious, for one free bleeding is much more useful than many sparing ones. "Bleeding," says Dr. Temple, "is necessary in quantity and repetition proportioned to the urgency of the symptoms, and strength of the patient." *Temple's Pr.* 128. The same physician recommends cooling purgatives, refrigerants, and saline draughts; and adds, that nitre, so guarded as not to increase the cough, will be very proper.

As it is necessary that the body should be kept gently open, if a laxative diet, as roasted apples, stewed prunes, &c. should not have the desired effect, a teaspoonful of the lenitive electuary may be taken twice or three times a-day.

If the disorder is symptomatic, the cure depends chiefly on the removal of the original disease.

Bathing the feet and legs in warm water has a salutary effect in this disease; and opiates, when administered with caution, are sometimes found beneficial. Ten or twelve drops of laudanum may be given in a cup of barley-water, twice a-day, and continued for some time, if found beneficial. The conserve of roses is also very proper in this case, if taken in a sufficient quantity, and with perseverance. Three or four ounces a-day may be administered; and if the patient be troubled with a cough, let it be made into an electuary with balsamic syrup, and a little syrup of poppies.

Should stronger astringents be found necessary, take fifteen or twenty drops of the acid elixir of vitriol, in a glass of water, three or four times a-day.

To prevent the return of this disease, no excesses should be indulged in, and the rules already laid down attended to: it may be necessary to repeat the injunction, that all exertions must be carefully avoided which may hurry the blood in its passage through the lungs; such as singing, loud speaking, running, coughing, lifting great weights, &c. Vigorous efforts of the body, and violent agitations of the mind, have a destructive tendency in this disease.

VOMITING

VOMITTING OF BLOOD.

WHEN blood is brought up manifestly by vomiting, there cannot be a doubt of its proceeding from the stomach; a confirmation of this fact will follow by its dark colour and grumous quality; by its being mixed with the contents of the stomach; and by its being generally preceded by weight, pain, sickness, and anxiety in the region of that organ.

The causes of this disease are plethora, accompanied by a peculiar determination to the stomach; suppression of some habitual hæmorrhage from some particular parts; it frequently proceeds from an obstruction of the menses in women; and sometimes from the stopping of the hæmorrhoidal flux in men. It may also proceed from violent straining in vomiting; or from external violence, as blows or bruises. Sometimes it is the effect of obstructions in the liver, the spleen, or some of the other viscera. Vomiting of blood is a common, but not by any means a dangerous symptom, in hysteric women. It may indeed be occasioned by any thing which produces inflammation.

If the vomiting of blood is the consequence of a suppression of the menstrual, or hæmorrhoidal discharge, and is in a small quantity, not much danger is to be apprehended. But if the discharge is very considerable, and black grumous blood is discharged, both by vomiting and by stool, the disease is dangerous, and requires the most skilful exertions to effect its cure.

If the disease is the consequence of suppressed accustomed evacuations, proper methods should be used to restore them. If it is the hæmorrhoidal discharge, the return of it must be solicited by applying leeches to the hæmorrhoidal veins once a week or fortnight, and poultices and fomentation. If it proceeds from a relaxation of the system, and vessels of the stomach, astringents and tonics will be necessary. Every irritation must be avoided, and quiet strictly enjoined.

Much danger arises in this disease from the extravasated blood lodging in the bowels, and becoming putrid; whence a dysentery or putrid fever may be occasioned. To prevent this, the body should be kept gently open by the frequent application of emollient clysters. Purges must not be given till the discharge is stopped, lest the stomach should be irritated, and the disorder increased.

The food and drink should be mild and cooling, and taken sparingly. When signs of inflammation appear, bleeding may be necessary; but the weakness will not often permit it. Opiates may be of use, if given in very small doses, as four or five drops of liquid laudanum two or three times a-day. After the discharge is over, gentle purges will be necessary, as the patient is generally troubled with the gripes, occasioned by the acrimony of the blood lodged in the intestines.

Those who have suffered from this disease, should, for some time afterwards, be cautious of taking any thing into the stomach which may tend to create irritation, or produce vomiting.

OF BLOODY URINE.

BLOOD discharged with the urine, is, in general, a symptomatic affection of some disease, and by the cure of that only can be removed. It may proceed from the kidneys, the ureters, the bladder, or the urethra. In this case the antecedent and attendant symptoms will shew the nature of the disease, and its seat, whence the proper treatment may be understood. It is generally caused by a laceration or erosion of the pelvis, of the kidneys, ureters, bladder, or urethra, by gravel, venereal virus, or the improper use of the catheter, or syringe. It may proceed from ulcers of the bladder, from a stone lodged in the kidneys, from violent purges, or sharp diuretic medicines. It may also be occasioned by falls, blows, carrying heavy burdens, or any violent exercise or exertion. It is more or less dangerous, according to the circumstances that attend it.

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Every thing that may irritate the urinary passage, or organs, must be avoided; and the intestines emptied by laxative medicines and clysters; and the patient ought to be kept quiet.

A discharge of bloody urine is attended with a considerable degree of danger, when mixed with purulent matter, as it indicates an ulcer in the urinary passages. When such discharge proceeds from excess of blood, it may rather be considered as a salutary evacuation than a disease; but if it flows to an excessive degree, it may weaken the patient, and bring on an ill habit of body, a dropsy, or a consumption.

Bloody urine is a frequent symptom in putrid diseases, and it always denotes a high degree of putrescency.

When bloody urine is attended with a plethora, and symptoms of inflammation, bleeding will be necessary; and the body should be kept open by emollient clysters, or cooling purging medicines: cream of tartar, manna, rhubarb, or small doses of lenitive electuary, may be administered.

If there is reason to apprehend that there is an ulcer in the kidneys or bladder, the patient's diet must be cool, and his drink soft, healing, and balsamic. Boil three ounces of marshmallow roots, with half an ounce of liquorice, in two quarts of water, till reduced to one quart; two ounces of gum-arabic, with half an ounce of purified nitre, may be dissolved in the strained liquor, and a tea-cupful of it taken four or five times in twenty-four hours.

Astringents should not be used too early or too wantonly in this disease: if the flux is stopped too soon, the confined grumous blood may produce inflammation, abscess, and ulcers; but if the patient seems to suffer from the loss of blood, gentle astringents may be necessary. In this case he may take three or four ounces of lime water, with half an ounce of the tincture of Peruvian bark, three times a-day.

It is sometimes of consequence to ascertain whether blood is mixed with the urine, and the following

No. 9.

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means

means will detect its presence: No other than bloody urine will tinge linen, dipped into it, of a red colour. Urine is always transparent when first made, however high-coloured it may be, if there is no blood in it.

PART XII.

OF THE HEAD-ACH, AND EAR-ACH.

THE HEAD-ACH.

THE head-ach is most commonly a symptomatic affection, attending fever, phrenitis, &c. but it sometimes occurs without any other disorder, and may be considered as a primary disease, very distressing, and difficult to remove.

The head-ach is sometimes acute, and sometimes chronical. In some the pain is in the back part of the head, from a contraction of the occipital muscles. When mild it is called caphalalgia; when inveterate, it is named cephalæa. When one side of the head only is affected, it takes the name of hemicrania: In one of the temples only, it is intitled crotaphos; and that which is fixed to a point, and generally in the crown of the head, is distinguished by the name of clavis hystericus. Sometimes the pain is internal, and sometimes external.

The nervous membranes of the head are the general seat of pains there; as the pericranium, or membrane covering the skull; the dura mater; the membrane which covers the sinus in the os frontis, &c. Women are the most subject to this disorder.

The causes are very numerous. Hippocrates, in the 13th section of his book *De Flatibus*, says, "As the motion of the blood in the head is performed through very narrow channels, the redundance and confinement of this fluid excites pain; for as the blood is naturally hot, when it is impelled by any force, it

“ cannot quickly pass through the narrow channels, “ since it meets with many hindrances and obstructions, “ for which reason there is a pulsation about the temples.” This account of the origin of head-ach is not excelled by any succeeding writer.

When the head-ach is occasioned by a hot bilious habit, a throbbing acute pain attends it, with a considerable heat of the part affected. If it accompanies a cold phlegmatic habit, the patient experiences a dull heavy pain, with a sense of coldness in the part. This kind of head-ach is frequently attended with a degree of stupidity.

Among the variety of causes, are, suppressed or diminished customary evacuations; as bleeding at the nose, sweating of the feet, &c. Whatever obstructs the free circulation of the blood through the vessels of the head may produce a head-ach. Or it may be occasioned by the acrid matter of some diseases, by fixing particularly on any part of the head; from a caries in the bones of the head; polypuses, &c. obstructing the passage of the blood through the jugular veins, and sinuses of the brain; stony concretions in the brain; acrid humours repelled from the external parts of the head; abscess in the brain; a want of sleep; exposure of the head to too much heat or cold; a spasmodic constriction of the nervous membranes in the head; uneasiness of the stomach, and the pernicious quality of its contents; cold feet; inanition, or emptiness; repletion; coldness of the extremities; holding down the head for a long time; looking long and obliquely at any object; wearing any thing tight about the neck, &c.

When a head-ach accompanies an acute fever, with pale urine, it is an unfavourable symptom. When it is attended with giddiness, sickness, and loss of appetite, but without fever, it denotes foulness of the blood. In excessive head-achs, coldness of the extremities is a bad sign. Head-ach, attended with pain and tightness at the pit of the stomach, generally proceeds from wind pent in the stomach. When accompanied with

a florid countenance, and a full sluggish pulse, it may arise from fulness of blood. If it continues long, and is very violent, it frequently terminates in blindness, deafness, a vertigo, an apoplexy, the palsy, epilepsy, &c. When a catarrh is the cause, a pain affects the fore-part of the head; it is of a dull kind, with a sense of pressure and heaviness.

The causes distinguished, and the particular cause determined, will easily lead to the cure. Patients subject to pains in the head, should eat sparingly at night, lay high with their heads, keep their bodies soluble, and their feet warm. An erect posture should be strongly recommended to them. Vomits are proper to begin the cure with, in all cases where the stomach is in fault.

Bleeding is only necessary when there is a sanguine plethora, or an inflammation attendant. Opening the temporal artery is usually extolled in violent head-achs; but if the external jugular vein was opened, greater benefit, and that more speedily, would be produced. Cupping also, or the application of leeches to the temples, and behind the ears, will be found serviceable. A blistering plaster may afterwards be applied to the neck, behind the ears, or any part of the head that is most affected. Issues, or perpetual blisters are found useful to persons of a gross habit.

The cool regimen is generally to be observed in this disease. The diet should consist of emollient substances to correct the acrimony of the humours, and keep the body open; apples boiled in milk, turnips, spinnage, &c. Diluting liquids, as barley-water, infusions of mild mucilaginous vegetables, &c. should be the common beverage.

In all cases where bleeding cannot be conveniently admitted, a bath of warm water, in which the feet and part of the legs may be now and then placed, will be of singular use.

Lenitive purges are more proper in all kinds of head-ach than the more active purges.

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But when it proceeds from a copious vitiated serum stagnating in the membranes, and will not yield to bleeding nor gentle laxatives, then more powerful purgatives are necessary, as pills made of aloes, resin of jalap, &c. It will then be also necessary to blister the whole head, and keep the back part of the neck open for a considerable time, by a perpetual blister.

Periodical head-achs are the most difficult to remove. In these cases the bark is the general remedy; and when it fails, large doses of valerian, duly repeated, will succeed. Habitual head-achs have been much relieved by cold bathing, and by the use of antimonial wine, taken in doses as large as the stomach will bear, with a strong infusion of the wild valerian root.

Head-ach occasioned by the stoppage of a discharge at the nose, may be relieved or removed by applying a bottle of volatile salts to the nose, and frequently smelling at the contents. Snuff, or any thing which will irritate the nose, so as to promote a discharge from it, will be found useful.

In the hemicrania, vomits, repeated bitter purges, and warm strengthening stomachics are the proper means.

When the head-ach is the consequence of great heat, hard labour, or any violent exercise, cooling medicines should be employed to allay it; such as the saline draughts, with nitre, &c.

If æther is dropped on a rag, laid upon the palm of the hand, and then immediately applied to the part affected, instant relief is sometimes obtained. Thus Dr. Ward cured pains that were situated superficially.

Symptomatic head-achs are only removed by relieving the original disorder. If the venereal disease gave rise to it, mercurials will be the proper medicines; if the scurvy, or other disorder in which an acrimony is introduced into the juices, let the means of relief respectively be accompanied with the free use of a decoction of sarsaparilla.

When the head-ach attacks the patient in an alarming degree, attended with great watchfulness, delirium, &c.

&c. recourse should be had to opiates; which, after proper evacuation by clysters, or mild purgatives, may be applied both externally and internally.

Cold water, drank to the quantity of a pint or a quart the first thing in a morning, has cured the nervous cephalalgia.

THE EAR-ACH.

THIS disorder affects the concha, and the whole meatus auditorius. It is attended with inflammation, erosion, tension, pulsation, and a sense of weight. It is sometimes so violent as to occasion great restlessness, anxiety, and even delirium. Extreme pain in the ear has brought on epileptic fits, and other convulsive disorders.

If the pain is violent it seldom fails to bring on a fever, which is early attended with great restlessness; and a delirium, fainting, &c. are the consequence; for the membrane which lines the ear is exquisitely sensible, and fully stored with nerves; besides membranes that adhere to bones have a more than ordinary sensibility.

The ear-ach may proceed from any of the causes which produce inflammation. Extraneous bodies falling into the ear, or whatever excites pain in other parts may cause it here. The quality of the wax may be faulty; sometimes an acrid serum is secreted in the glands of the ear. When the wax, or other humours are saline, they excite a pricking pain; when the salts in these humours are corrosive, they excite a gnawing pain; when the wax ferments whilst it is yet in the glands, it causes a tensive pain; when the glands are very turgid, or swelled, there is a sense of weight; and when there is a tumour, a pulsation is perceived, especially if it tends to suppurate.

The ear-ach frequently proceeds from a sudden suppression of perspiration, or from exposing the head to the cold whilst it is profusely sweating. Worms, or other insects, getting or breeding in the ear, may occasion

casion it. Sometimes it is produced by the translation of morbid matter to the ear. When this happens in the decline of malignant fevers, and occasions deafness, it is generally deemed a favourable symptom.

The ear-ach, attended with feverishness, is a symptom of inflammation in the ear.

In the beginning, whilst the pain is not very considerable, a little warm olive-oil dropped into the ear will often relieve. If cold is the cause, keep the head warm. When acrid discharges are the cause, inject a warm infusion of poppy-heads in water. When living insects have crept into the ear, blow the smoak of tobacco therein, and then pour in warm oil. Sneezing should also be provoked, by taking snuff, or some other strong sternutatory. If this should not drive out the troublesome intruders, they must be extracted by art. Pouring oil, to which they have a great aversion, into the ear, will frequently induce them to abandon their post, and come out of their own accord.

When the ear-ach proceeds from inflammation, recourse must be had to a cooling regimen, and opening medicines. Bleeding, at the beginning, in the arm or jugular vein, or cupping in the neck, will be proper. Foment the ear also with steams of warm water, or apply flannel bags filled with warm mallows and camomile flowers to it.

If purulent matter discharges itself, inject warm water, mixed with a little soap, or honey of roses. The feet of the patient should be frequently bathed in luke-warm water, and small doses of nitre and rhubarb should be administered to him: a scruple of nitre, and ten grains of rhubarb may be taken twice a-day. Let his drink be whey, or decoctions of barley and liquorice, with figs and raisins. Let the parts behind the ear be often rubbed with camphorated oil.

If the inflammation cannot be discussed, apply a poultice of bread and milk, or roasted onions to the ear: This must be often renewed, till the abscess breaks, or can be opened. The humours are afterwards

wards to be diverted from the part, by gentle laxatives, blisters, or issues; care being taken that the discharge be not suddenly dried up by any external application.

OF WORMS.

WORMS chiefly affect young people, prior to the age of puberty. There are three kinds of them which principally infest the human body, *viz.* the *tænia*, or tape-worm; the *teres*, or round and long worm; and the *ascarides*, or round and short worm. The most frequent seat of the worms in the human species is the intestinal tube; but occasionally they have been found in almost every other part of the body.

The tape-worms are from two to forty feet long; they generally possess the whole tract of the intestines; they very much resemble a tape in their appearance, whence they have obtained the name of the tape-worm. The round and long worm is also bred in the small guts, and sometimes in the stomach. The *ascarides* have usually their seat in the rectum.

Worms may, in general, be suspected from the following general

SYMPTOMS and CAUSES. The symptoms by which it is supposed that worms are in the body, are the same in general, whatever be the species of them; but an itching in the anus is the almost constant sign of the *ascarides* being in the rectum. They occasion such uneasiness in some people as to make them faint, and generally are so troublesome in the night as to deprive them of sleep: sometimes there is so much heat in the intestines as to cause a sensible tumour about the anus; but as these worms are voided in the stools, their presence is most certainly known by seeing them there; for there is no one sign but what is wanting in some patients. The round and tape-worms are also frequently discharged.

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Though this sort of worms are as difficult to destroy as any other, they are less dangerous. These little worms are so enveloped in mucus, that great difficulty attends the destruction of them. The best known remedy is the Harrowgate water, if drank at the Spring: the flower of brimstone, taken with treacle, in such a quantity as to gently purge the patient every day, is perhaps the next in efficacy to the Harrowgate water: the fumes of burning tobacco, injected clyster-wise into the rectum is of singular efficacy: a decoction of savin in water has been often used with success, when taken for some time; and perhaps repeated doses of rhubarb may answer as well as any other remedy.

Worms are seldom found but in persons with weak stomachs, or where digestion is ill performed. As to certain aliments producing worms, it is objected that all we eat may be expected to generate them, as well as those articles usually specified. It is said that they cannot be hatched in a healthy inside, for the gall, in particular, would destroy them. In children the gall is generally as inert or sluggish as it is redundant, and in cases of indigestion, when adults are the subjects of these vermin, the gall is also defective in its quality, and probably hence is the mediate cause of worms in the human intestines.

Dr. Temple says, the symptoms are, "Obtuse pain
"and swelling, and sometimes a gnawing in the abdo-
"men; costiveness and purging alternating with each
"other; irregular appetite for food, sometimes it is
"voracious, and sometimes there is none; grinding of
"the teeth, flushing of the cheeks, disturbed sleep,
"picking of the nose, paleness, and emaciation: but
"as these symptoms attend many other complaints as
"well as worms, the *diagnosis has often been uncertain*
"*and difficult.*"

Dr. Home says, that when a swelling of the upper-lip accompanies some or all of these symptoms, it is a certain diagnostic symptom of worms; and the Doctor's Observation, (says Dr. Temple) is confirmed by my experience. *Temple's Pract.* 326.

To these symptoms, Dr. Buchan adds; a sour or stinking breath; a hard swelled belly; great thirst; the urine frothy, and sometimes of a whitish colour; an involuntary discharge of saliva, especially when asleep; frequent pains of the side, with a dry cough, and unequal pulse; palpitations of the heart, swoonings, drowsiness, cold sweats, &c.

On this subject, Parkinson makes the following observations: "Paleness, irregular appetite, and pains of the stomach and bowels, are generally supposed to be marks, by which the existence of worms in the stomach or bowels may be known; but these symptoms are *equivocal*, since they generally accompany a debilitated state of the system, proceeding from any cause whatever. Indeed it is by no means so easy, as it is in general imagined, to determine whether worms do really exist in the bowels, or not."

After many other remarks on the *equivocal* symptoms above enumerated, he adds, "The symptoms which are said to mark their presence, (*the worms*) I have already observed, are those which likewise accompany debility from any other cause. If, therefore, this debility proceed not from worms, and the means generally recommended for their removal, particularly smart mercurial and scammoniate purges, be adopted, they will not only fail of producing beneficial effects; but, by increasing the weakness of the patient, occasion very dangerous consequences."

He then illustrates these remarks by a statement of the following case: "Within these few months, I witnessed the destruction of a young woman, who, enfeebled by a weak state of the stomach and bowels, could not be dissuaded from believing that her complaints were occasioned by worms. She therefore procured and took, without acquainting her friends, a nostrum advertised as a safe and speedy cure for worms. After a little time, she perceived a little soreness of her mouth: this she little noticed. It became worse, and this she concealed as long as she could, ashamed of having secretly employed those

“ means to which she attributed her present complaints.
 “ At last she informed her friends of her distress and its
 “ cause, and, upon examination, was now found to be
 “ in a deep salivation. By a proper treatment the
 “ salivation was, after some time, stopped; but so much
 “ was she reduced by the severity of her sufferings, by
 “ the quantity of saliva discharged, by the deprivation
 “ of her food, &c. that, although placed in the country
 “ under the care of an attentive assiduous mother, she
 “ soon died.” *Med. Admonitions*, 401. Dr. Buchan
 mentions a similar disaster, of a girl taking worm-powder
 bought of a travelling quack, which occasioned her
 death on the following day.

Professional skill should always be applied for in these equivocal cases, especially where the Domestic Physician is not sure of the existence of these vermin.

Among the variety of remedies proposed for the destruction of worms, none seem more to be depended on than those which purge briskly, in conjunction with those that strengthen the organs which produce chyle. Various are the specifics for destroying them, but their efficacy may be attributed to their purging or corroborating quality, or to both. Brisk purgatives are the most proper medicines for expelling or destroying worms; and to prevent their breeding, stomachic bitters are recommended, and a glass of good wine occasionally.

Dr. Bisset extols the bastard black hellebore as a most certain destroyer of the round worm; but purging, by lessening the slime, always relieves; and probably the worms, that are not forced away by this quickened motion of the intestines, may, for want of slime, languish and die.

It does not appear that one kind of purge is preferable to another, let the kind of worms be what they will; the worms being always defended from the immediate action of the medicine by the slime, and therefore purges which act briskly, and of which a frequent repetition can be borne, are the best. Of this sort are purging waters, particularly the sulphureous jalap, &c.

Those big bellies in children, which are generally supposed to indicate worms, are often removed by giving them white soap in their pottage, or other food, Tansey, garlic, rue, the cabbage bark, &c. are useful, in various ways, against worms; but it is generally agreed that the powder of tin with æthiops mineral, and the purges of rhubarb and calomel are more to be relied on.

Ball's purging vermifuge powder, which is a very powerful medicine, is made of equal parts of rhubarb, scammony, and calomel, with as much fine sugar as will nearly equal the weight of all the other ingredients. Mix these well together, and reduce them to a fine powder. The dose for a child may be from ten to twenty grains, once or twice a week. A dram is a proper dose for an adult.

Many are of opinion that twenty-five or thirty grains of jalap, with six or seven grains of calomel, mixed in syrup, is the best purge for an adult, and may be taken early in the morning for a dose: the patient, however, should keep within the whole day, and drink nothing cold. He may repeat it once or twice a week for three weeks, if it appears necessary; and on the intermediate days he may take a dram of the powder of tin, mixed with honey, syrup, or treacle, twice or three times a-day. Those who dislike calomel, may use the bitter purgatives; as aloes, hiera picra, tincture of fenna and rhubarb, &c.

It is a maxim, very frequently adopted, to allow a child who is subject to worms, a glass of red Port wine after a meal. Whatever strengthens the stomach has a tendency to extirpate these vermin.

PART XIII.

OF COSTIVENESS, WANT OF APPETITE, HEART-BURN, MELANCHOLY, HICCUP, THE INCUBUS, AND FLATULENCIES.

COSTIVENESS.

COSTIVENESS is an extraordinary detention of the excrements, with an unusual hardness and dryness thereof; and, thence, a difficulty of discharging them. This is the opposite to a diarrhæa, or looseness.

Men of sedentary, and idle lives, are more liable than others to this complaint, especially when subject to commotions of the blood, and of a dry choleric temperament, and such as are subject to hypochondriac affections, and to the gout; or to gravelly complaints, and acute fevers.

CAUSES. The occasional and accidental causes which contribute to harden the fæces are the following: a neglecting the usual time of going to stool, and checking the natural tendencies and motions towards it; an extraordinary heat of the body, and copious sweats; a larger quantity of solid food taken into the stomach than is proper for the quantity of fluids swallowed, and a common use of such food as is dry and hard of digestion.

Costiveness is sometimes occasioned by drinking rough red wines, or other astringent liquors; or by a long use of cold insipid food: sometimes it proceeds from too much exercise, especially on horseback. It also proceeds from diseases of the intestines.

The first and most obvious sign of costiveness is, the not going to stool in the space of twenty-four hours: this is usually succeeded by a dizziness or vertigo of the head, painful collections of blood about the head, flatulencies, oppression of the stomach, and straitness and anxiety about the præcordia. *Junker's Consp. Med.* p. 590.

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It is the origin of a great many disorders; and, in particular cases, is often attended with imminent danger. In choleric habits, in which persons are subject to large quantities of bilious matter being lodged in the *primæ viæ*, costiveness is usually attended with colics and violent heats. The hardened excrements also, when they press upon the veins in the guts, very often prevent the circulation, and, by that means, bring on dangerous inflammations in the parts; and, in general, whatever disease is attended with costiveness, is rendered worse, and more violent by it.

Persons who are frequently costive should make choice of a moistening and laxative diet, as roasted or boiled apples, pears, stewed prunes, &c. Bread made with a mixture of rye and wheat is very proper; but that which is made of fine wheat flour alone will not be found so salutary.

CURE. Costiveness, when grown into a habit by long sufferance, is best cured by drinking more liquids than usual, and giving the body a greater share of motion; but this motion must, by no means, be violent, for that always increases the disease; but when placid and easy, it tends greatly to the restoring the peristaltic motion of the bowels to its proper state. To this it may be added, that many people have restored themselves from this distemperature to a good state, only by going to the close-stool every day, at a certain hour, and endeavouring for some time, but without great violence, to force a stool: the consequence of a continual practice of this, for some weeks together, has brought nature to expect it, and, in fine, to be prepared for it, and always to have fæces at the time ready to be discharged.

The eating a small piece of bread, with a large quantity of butter spread over it, every day before dinner and supper, is also a good custom; and purges taken every spring and autumn, will frequently bring nature into a proper course. When the case is violent, and calls for the assistance of medicine, there is always
more

more benefit obtained from clysters, than from purging medicines given internally. These last, when given, must never be violent.

In a symptomatic costiveness, the primary disease is always to be first regarded, and this is, generally, not a little relieved by a proper removal of the costiveness. When costiveness is attended with no other complaint, but people enjoy their perfect health with it, there is no occasion for medicines, nature being in some constitutions habituated to it, and doing well with it. There are many persons who, in general, do not go to stool oftener than once in three days; some once in a week; and there have been instances of people, who, while they enjoyed perfect health, and a good appetite, have not gone above once in three or four weeks.

When habitual costiveness is to be cured by motion, and drinking more fluids, these must be always used together; for otherwise drink alone more relaxes the bowels, and motion alone dissipates the already too little humidity. Thus either of them alone must add to the disease, which, when given together, they cure.

The common method of attempting to cure costiveness by repeated doses of purges, brings on a great many inconveniencies; particularly they always leave the bowels more bound than before, and by that means add to the complaint they were meant to relieve; and even the gentlest purging medicines have this effect. Those who are troubled with costiveness ought therefore, if possible, to remedy it by diet; their drink should be of an opening quality, and all ardent spirits, astringent wines, &c. should be avoided.

When medicine is found absolutely necessary to keep the body open, gentle doses of rhubarb may be taken twice or three times a week. This is less injurious to the stomach than aloes, jalap, or other drastic purges so frequently recommended. Some lenitive electuary, not exceeding the size of a nutmeg, taken twice or three times a-day, is often found useful in this complaint.

WANT

WANT OF APPETITE, OR WEAKNESS OF THE STOMACH.

IRREGULARITIES in the mode of living are the most frequent causes of this malady. Those who drink immoderately of tea or coffee are particularly liable to it; as well as those who indulge in the excessive use of tobacco and opium. It may proceed from a foul stomach; the want of free air and exercise; fear, grief, anxiety, terror, &c. Those who are much exposed to cold and moist air, and those who lead sedentary lives, are often subject to this disease. But the most frequent cause is, perhaps, the constant use of spirituous and strong fermented liquors. The use of strong broths, fat meats, or whatever palls the appetite, or is hard of digestion, also creates this malady.

The symptoms are squeamishness, heart-burn, costiveness, distensions of the stomach, eructations of imperfectly digested matter, &c. The functions of the stomach not being duly performed, a sufficient quantity of food is not taken into that organ, and what is taken in is not properly digested. Hence the blood becomes impoverished, and the body is deprived of sufficient nourishment.

An open dry air should be chosen for the patient, and he should take exercise daily on horseback or in a carriage: he should rise early, and avoid intense study. His food should be easy of digestion, and all excessive heat and fatigue must be avoided.

The patient afflicted with this complaint, has, in general, recourse to some healing aromatics, or bitters steeped in spirits, which may perhaps sometimes afford a temporary relief; but more effectual means than these must be employed to procure a removal of the disease; the stomach must be cleansed of the ill-digested matters with which it is loaded, and proper regulations must be adopted to prevent their future accumulation. If these

these be carefully attended to, the Peruvian bark, bitters, preparations of steel, &c. may be administered with great probability of benefit.

Dr. Buchan says, "Elixir of vitriol is an excellent medicine in most cases of indigestion, weakness of the stomach, or want of appetite. Twenty or thirty drops of it may be taken twice or thrice a-day in a glass of wine or water. It may likewise be mixed with the tincture of the bark, one dram of the former to an ounce of the latter, and two spoonfuls of it taken in wine and water, as above."

An infusion of camomile flowers, properly administered, is often successful in this disease. But Parkinson, in his Medical Admonitions, has cautioned his readers respecting the mode of administering that infusion. His words are these—"The infusion of camomile flowers is a medicine which is frequently employed, with a considerable degree of success in this disease; but owing to a mistake sometimes made in the mode of administering it, effects are produced quite *opposite* to those which were hoped for: the error consists in the infusion being drunk *warm*, and in a *large quantity*; by which nausea, and even vomiting is produced; whereas if taken in the quantity of a *tea-cupful*, and *quite cold*, it lessens sickness, and increases the appetite."

The chalybeate waters, drank in moderation, are generally found useful in this case. Salt-water has also good effects, when not too freely used.

HEART-BURN.

WHAT is commonly called the heart-burn is an uneasy sensation about the part called the pit of the stomach; it is attended with great anxiety, difficulty of breathing, want of strength, inquietude, reaching to vomit, coldness and trembling of the extremities. Those whose stomachs abound with acid, or with bilious disorders, are the most subject to this complaint.

No. 9.

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CAUSES.

CAUSES. The causes are various, as wind, acid, and other acrimonious humours in the stomach; or from debility of the stomach, or a loss of its mucus. It may proceed from worms; from a spicy and pungent aliment; or from a transition of rheumatic or gouty humours to the stomach; or an ulcer in any part of it. It may be occasioned by fat aliment, especially if cold small liquors are drank too soon after eating it. If it proceeds from bilious matter, it is attended with bitter and nauseous eructations or belches, as well as by a yellow or greenish discharge by vomiting; collections of blood about the region of the stomach from a plethora, or from spasms.

Dr. Hunter is of opinion that this disorder is generally caused by fumes arising from acrid humours, rather than from the humours themselves: his reason is, because if the patient puts himself into a posture to prevent the fumes arising to the part affected, immediate relief is generally found. A spasm in the orifices of the stomach, by which the vapours are impeded in their passage from this viscus, and by the heat of the part rarifying, produce a distension, anxiety, &c. particularly after meals. Stones in the gall ducts, or in the ureters, by sympathy produce this disease in the stomach.

More or less of the symptoms, above enumerated, are the attendants of the heart-burn, which approaches generally with yawning and listlessness, and at its height the extremities are cold. It does not quit the patient till heat returns into the feet, and it often totally vanishes with a copious perspiration.

The heart-burn must be distinguished from that oppression and uneasiness in the stomach, which is only the effect of overcharging it with food, the cholic, and a swooning.

If this disorder succeeds a fever with petechial or purple spots, it is generally a fatal sign; following a cessation of pain in gouty limbs, manifests the return of the disorder inwards, which is dangerous. If it succeeds foul exulcerations in the skin, there is much danger.

danger. Coming on upon a sudden check of a dysentery, it is a bad sign; but except it is attended with inflammation, or the consequence of some other disease, it is rarely dangerous.

REGIMEN. The diet should be light, generally of the animal kind; what is drank should not be apt to ferment; brandy and water, or water in which toasted bread is steeped, will generally agree; or camomile tea, which soothes the spasmodic motions of the stomach. Lime-water, the mineral alkaline waters, and distilled water are proper for common drink.

CURE. In order to the cure, it should be considered whether or no the disorder is symptomatical; if it is symptomatical, regard must chiefly be had to the primary disorder; if it is an original complaint, its various causes must be adverted to, that the remedies may be adapted to the particular one in the present case.

If the heart-burn is occasioned by acidity or sourness of the stomach, absorbents are the proper medicines; and the safest and most commodious absorbent is magnesia alba, for it acts as a purgative as well as an absorbent. A large tea-spoonful of this powder may be taken in a cup of tea, or a glass of mint-water. But though a large tea-spoonful is the usual dose, a larger quantity may be taken if required.

If with acidity, the digestion is weak, besides the magnesia at proper intervals, bitter infusions, mixed with mild aromatics, will be proper.

If the heart-burn arises from fat aliments, warm water should be drank, and after it a little of any spirituous liquor. If aromatics, or high-seasoned food is the cause, frequent draughts of warm water gives the speediest and most effectual relief.

When flatulence, or wind, with a weak stomach, are the chief causes, carminatives give great relief, as juniper-berries, aniseeds, ginger, cardamum-seeds, &c. These may either be chewed, or infused in wine or spirits.

When an undue use of spirituous liquors gives rise to this disorder, the bark and vitriolic acids, before

and after meals, moderate exercise, and the mineral alkaline waters, are the best means of recovery.

In hysteric or hypochondriac heart-burns, light infusions of the bark with rhubarb, and small doses of fixed alkaline salt, the chalybeate waters, and exercise on horseback, should also, if possible, be used. In hypochondriac causes, nitre is often used.

Gouty matter, &c. in the stomach, causing this complaint, is to be removed by warm cordials, taken in moderate quantities, until the stomach itself becomes warm: how much will be sufficient to produce this effect, the feelings of the patient alone can determine.

If the heart-burn proceeds from debility of the stomach, or indigestion, the patient should take a dose or two of rhubarb; and he may afterwards use infusions of the Peruvian bark, or any other of the stomachic bitters, in wine or brandy. Exercise in the open air, and every thing that promotes digestion, will be essentially useful.

Persons who experience a kind of tendency to this complaint should avoid stale liquors, acids, windy or fat aliments, and should be particularly careful not to use violent exercise soon after a plentiful meal.

OF MELANCHOLY.

MELANCHOLY, in medicine, is a low kind of delirium, without a fever; usually attended with fear, heaviness, and sorrow, without an apparent occasion. Or, as some define it, a disease which consists in the perturbation or injury of the imagination, which prevents it from forming a regular and determinate idea of things, as at other times; so that its due operations are interrupted, and often second ideas, having no connection with the first, crowd in, and are succeeded by actions no way analogous or similar to that first idea, and therefore appearing irrational.

This malady has essential differences, on account of the causes from which it is produced. In some people, it

it seems wholly to depend upon a false judgment of things in the mind; and in this case it is usually habitual and incurable. In others, it arises from injuries of the body; and in these it always is observed to bear a proportion to the injury or debility of the parts. This peculiar species is called hypochondriac melancholy; and finally, in others, it seems of a mixed nature; as when it has taken its origin from distemperatures in the body, but is afterwards so increased by mental disorders, that even after the total removal of the corporeal ones, it still remains in all its force upon the mind. This is a too common and very unhappy case.

CAUSES. It may proceed from an hereditary disposition, melancholic temperament, depressing passions or affections of the mind, great and affecting disappointments, suppressed evacuations, intemperance, and injuries of the cranium. Sometimes it is occasioned by a sedentary life, and solitude; and by acute fevers, or other diseases. It is sometimes the effect of excessive venery; and is frequently produced by gloomy and fanatical notions of religion.

SYMPTOMS. "In this disease," says Dr. Temple, "the patient shuns society, and courts solitude, is fearful and low-spirited, and these symptoms are frequently observed for some time before an actual derangement is perceived. He indulges a certain train of thoughts upon one subject, and generally fixes upon that which was the cause of his misfortune, if it has been brought on by any sudden and violent affection of the mind. The face is generally pale, the urine is small in quantity and watery, the patient is generally costive, and the stomach affected with flatus (*or wind*;) and in some cases, so miserable are the feelings that the unfortunate wretch seeks every opportunity of putting an end to them, by terminating his existence."

To these symptoms, the following may be added; the patient is fretful, fickle, capricious and inquisitive; solicitous about trifles, and alternately niggardly and prodigal: he has a distaste and dislike to every thing,
even

even before it comes in sight, and frequently weeps for imaginary causes, or for no cause at all. Many people, in this case, seem always to want room; they are for opening all the windows they can, and for running out into the streets or fields, thinking themselves every where imprisoned; others leave their houses, and dread being taken up for capital offences, though never guilty of any: and in others these distemperatures of the mind are evidently joined with those of the body, such as palpitations of the heart, deep sighs, and painful breathing.

This disease is varied an infinite number of ways, according to the temperament and ideas of the person affected with it. It is a species of madness, and only differs from a downright mania in degree.

If it arises from suppressed evacuations, or any bodily disorder, there are greater hopes of a cure than when it proceeds from affections of the mind. In these cases a looseness, hæmorrhage, or eruption sometimes carries off the complaint. When it is hereditary, a cure is hardly to be expected.

If the patient begins to enjoy sound refreshing sleep, if the mind can be easily diverted from its accustomed train of reflections, and becomes capable of lively impressions, a recovery may be hoped for.

REGIMEN. The diet must be regulated by the strength and other circumstances; but it should, in general, be light, nourishing, and of easy digestion. Salted flesh or fish, and shell-fish of all kinds should be particularly avoided. Aliments prepared with onions, garlic, &c. are also improper. Wholesome fruits will be found salutary. Strong liquors, tea, and coffee, are to be avoided. The patient may drink water, whey, or very small beer. If honey agrees with him, he may eat freely of it, or his drink may be sweetened with it. Infusions of penny-royal, balm leaves, the roots of wild valerian, or the flowers of the lime-tree, may be drank freely, with or without honey, at the option of the patient.

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He should take plenty of exercise in the open air, as confinement to a close apartment would have a direct tendency to increase the disorder. Not only riding and walking are recommended, but digging, planting, hoeing, &c. are likewise proper; for it is necessary the body and mind should be exercised. A journey or voyage to a milder climate, with sprightly cheerful companions, has often had very beneficial effects.

CURE. Melancholy, when it depends upon immaterial causes, requires physic for the mind rather than for the body; and the frequent conversation with an ingenious friend, of a calm and quiet disposition, will go farther towards a cure than a thousand medicines. When the patient is in a low state, his mind should be soothed and diverted with amusements of every denomination, as pleasant tales, histories, music, card-playing, or whatever else may banish unpleasant reflections.

When the patient is high, he should be bled and have his body kept open by purging medicines, as rhubarb, manna, cream of tartar, or the soluble tartar. The soluble tartar is particularly serviceable: half an ounce of it, dissolved in water-gruel, may be taken every day for several weeks. More or less may be given, according to its operation. Vomits of a sufficient strength have also a good effect; but if they are not pretty strong they will not operate.

To increase the evacuation of urine and promote perspiration, which tends greatly to the removal of this disease, the patient may take half a dram of purified nitre, three or four times a-day, in any manner that is most agreeable to him; and an ounce and an half of distilled vinegar may be daily mixed with his drink.

A dose consisting of ten or twelve grains of camphire, rubbed in a mortar with half a dram of nitre, and taken twice a-day, has also been used with advantage.

Musk has sometimes been found useful in this complaint; a scruple or twenty-five grains of it may be made into a bolus, with honey or common syrup, and taken two or three times a-day.

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There is a lower species of melancholy, called low-spirits, to which persons of weak nerves are more or less subject. Generous diet, the cold bath, exercise, and amusements, are the most likely means to remove this complaint. It is much increased by solitude, and indulging gloomy ideas, but may often be relieved by cheerful company and sprightly amusements.

THE HICCUP.

THE hiccup is a spasmodic affection in the stomach, midriff, and muscles subservient to deglutition or swallowing. Hippocrates says, that the stomach is its seat; and others, since him, assert the stomach to be the principal seat. The disorder is primary or symptomatic. The immediate cause is generally allowed to be an irritation of the stomach. When attending acute disorders, it is called the acute; and when a companion of chronical disorders, it is called the chronical hiccup.

The occasional causes are errors in diet, as excess in eating or drinking; a wound or other injury done to the stomach; an inflammation there; acrid poison; sour juices; flatulence, or wind in the stomach; inflammations or scirrhus tumours of the stomach, intestines, bladder, midriff, or the rest of the viscera. A hiccup is often the forerunner of death in gangrenes, and acute and malignant fevers.

When the hiccup happens in weak stomachs from a full meal, windy food, or food hard of digestion, relief is generally obtained by a glass of generous wine, or a dram of some spirituous liquor.

If acid crudities in the stomach are the cause, absorbents and the bark should be given, with warm bitters.

If it proceeds from an inflammation, &c. of the stomach, there is great danger. In this case let the cooling regimen be strictly observed: the patient should be bled, and frequently take a few drops of the sweet spirit of nitre in a cup of wine whey. Let his stomach
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be also fomented with cloths dipped in warm water: or apply bladders to it, filled with warm milk and water.

When irritating poisons are the cause, besides emetics, plenty of warm milk, and frequent doses of sweet oil will be useful.

If indigested aliment is the cause, a table-spoonful of sharp vinegar will often relieve.

Emetics, and sternuatories, *viz.* medicines to procure sneezing, often effect a cure.

If the hiccup proceeds from a gangrene, or mortification, the Peruvian bark, with other antiseptics, are the best medicines that can be administered.

If it is occasioned by a foul stomach, a gentle vomit and purge will be of service.

When this disorder is obstinate, recourse must be had to the most powerful aromatic and antispasmodic medicines; musk should be given in doses from ten to twenty grains, made up into the form of a bolus, and repeated occasionally. External applications are sometimes proper, as the stomach plaster, or a cataplasm of the Venice treacle.

THE INCUBUS, OR NIGHT MARE.

THE incubus or night-mare is a disease in which the senses are not quite lost, but they are drowned and astonished, as is also the understanding and imagination; so that the patient seems to think some huge weight thrown on him, and ready to strangle him; or he imagines, in time of sleep, that he feels an uncommon oppression or weight about his breast or stomach, which he cannot possibly throw off. He frequently attempts to speak, but in vain, though he sometimes cries out and groans. Sometimes he supposes himself pursued by thieves, enemies, or wild beasts, from whom he apprehends great danger, and attempts to run away, but perceives he cannot. He often supposes himself in danger of drowning in a river, or of falling over a

precipice; in which cases the dread of being drowned or dashed to pieces sometimes awakes him.

The incubus is a disease consisting in the spasmodic contraction of the muscles of the breast, so very violent that he can hardly utter any articulate sound, or breathe. The word is derived from the Latin *incubare*, to lie down on any thing, and press it.

Children are very liable to this distemper; so are fat people, and men of much study and application of mind; because the stomach, in all these cases, finds some difficulty in digestion.

The incubus seems to be nearly allied to the epilepsy and apoplexy; for, if it continues long, it degenerates into one or other of those diseases. Others reckon it a kind of asthma, and call it *asthma nocturnum*; and say it proceeds from the same causes, and is helped by the same means as the common asthma.

The whole complaint goes off as soon as any one limb is moved, but there is often an universal lassitude of the whole body left behind it, which continues for some space of time. This disease generally attacks people in the night-time, in a sort of middle state between sleep and waking.

Those of plethoric habits are most subject to fall into this disease, and among them those in particular whose blood is very thick. Persons who are subject to hypochondriac complaints, and to disorders of the spleen, are also much affected with it; and it is usually brought on by eating large suppers, going to bed soon after, and then sleeping upon the back. Wind is also a frequent cause of this disease, it therefore certainly follows that all those who are afflicted with it should avoid all flatulent food.

The causes are a stagnation of the blood in plethoric habits, where it is thick about the *vena portæ*, which nature is endeavouring to throw off by means of those spasmodic motions which constitute this disease; and very often crudities in the *primæ viæ* become additional causes, and exasperate the complaint. Some have supposed that this disorder proceeds from a stagnation of

the blood in the brain, lungs, &c. but it is rather a nervous affection, arising chiefly from indigestion; hence sedentary persons, and those of weak nerves, are frequently afflicted with it.

This is, by some, esteemed a trifling complaint, and, at the utmost, if it does not go off of itself, to be cured by bleeding. Physicians, in general, consider it a disease of no danger; but it is much to be suspected, that many of those people who are found dead in their beds, have perished by it.

Young persons, full of blood, who are troubled with the night-mare, should use a spare diet, and frequently take a purge.

As persons under the influence of the night-mare often moan, so as to be heard by others in or near the same apartment; it would be inhuman in those whose ears were saluted by such moans, not to wake such persons immediately, especially, as already observed, that the uneasiness generally goes off as soon as the patient is awake.

Dr. Whytt recommends a glass of brandy, at bedtime, as a preventive: this, however, would gradually lose its effect, and is by no means adviseable. The patient should rather depend on the use of food easy of digestion, cheerfulness, exercise, and a light early supper.

FLATULENCIES, OR WIND.

FLATULENCY, in a general sense, is used by medical writers to express a distempered state of the body, in which there is an uncommon and unnatural generation of elastic matter, of the nature of air, arising from the humidity of the abdomen, and attended with several very disagreeable symptoms. Some authors mention flatulences of the uretus and the bladder; but these are rare cases, though they may sometimes happen. What is usually understood by the word flatulency, is wind or flatulency in the stomach or bowels.

There are flatulencies of a torpid and of an impetuous kind. The torpid flatulencies of the bowels give the patient very little uneasiness; people of phlegmatic habits are much subject to them, and generally very little regard them: but the impetuous kind very often occasion the utmost disorders, on the slightest accidental occasions irritating them; people of a sanguine and melancholic habit are most subject to them.

The most obvious effects of flatulency are the rumblings that are felt in the bowels, with noises attending them; and, instead of these rumblings, there are sometimes plainly perceived fixed distentions of them in particular parts, with tension and straitness of the abdomen. From the continuance of these symptoms, arise pains which sometimes change place, and sometimes remain fixed, and seem to swell the intestines in such a manner as to endanger bursting: and when commotions of the blood are the cause of these, there are usually pains felt attending them on the left side, and about the region of the heart, and the patient complains of the usual symptoms of hypochondriacal people.

An obstinate costiveness also frequently accompanies this disease, which always renders it more violent; and a straitness of the breast, attended with anxieties and difficulties of breathing, are usually the attendant symptoms on it, when violent. The more the flatulency has been owing to crudities, the more will the patient be affected with vertigo, and other disorders of the head.

The material causes of flatulencies, or wind, are those substances swallowed in food which are of a mucous or adhesive consistence, and by their obstinately adhering to the bowels are capable of giving great trouble. Of this kind are the herbs used in food, which are of a thick tough juice; or the leguminous or pulse tribe, as peas, beans, cabbages, coleworts, and the like. But strong and healthy people, who never overload their stomachs, or drink liquors in a fermenting state, are seldom troubled with wind.

Dried

Dried sea-fish, and all animal fats, as that of sheep and calves, promote this disease, especially if the person drink immediately after eating heartily of them. The Summer fruits are also chargeable with these effects, and above all things honey.

Flatulencies, or wind, often prove an extremely troublesome complaint, and people of an idle sedentary life, especially women, owe a great many uneasy hours to them; and when they grow into a habit, they are always attended with colic pains, anxieties and suffocatory emotions. It is always to be observed that the forcible suppression of wind brings on much worse complaints, especially in plethoric and sanguine habits. The free discharge of flatulencies, on the other hand, is attended with its ill consequences, because it naturally degenerates into a habit.

CURE. The first consideration is, whether the flatulences have their origin in the bowels, or whether they affect them only by consent, as is frequently the case in diseases of the neighbouring parts, in hypochondriac and hysteric patients, and in persons afflicted with hæmorrhoidal complaints, and in cases where women have been ill managed in lyings-in, or in miscarriages: in all these cases, the original cause is to be considered, and treated with its proper remedies.

But in cases of direct and simple flatulencies, the following method will be usually found effectual. The bowels must be carefully kept gently open; for in cases of costiveness, flatulencies will always be increased. To this purpose the common clysters must be given at repeated times, and to these, by way of increasing the stimulus, some of the lesser centaury is to be added, and some common salt. After these, the laxative medicines of the gentler kind are to be given, and, in the intermediate days, the digestive salts, to attenuate or dilute the viscid matter in the bowels: to these, nitre, and a little cinnamon, may be added; and these always have a much better effect than all the hot carminatives usually given.

After

After these, those things are to be given which restore the tone of the part; such are the bitter and aromatic extracts, with spirit of salt of tartar, spirit of nitre dulcified, and the volatile urinous salts aromatised.

Externally stomach plasters may be applied to the pit of the stomach, as may also the stomachic balsams, such as the oils of nutmeg, carui, fennel, and the like.

Beyond all things, the too common method of giving a vomit in these cases is to be avoided; for the discharge of the flatulencies upwards is inverted by this means, and then usually follow exquisite pains and tensions of the parts, difficulty of breathing, vertigo in the head, with noises in the ears; and many other complaints, which are continually increasing, till they are a little eased for the present by an eructation. The happy way of getting rid of these flatuses, is by driving the cause of them downwards, and restoring the lost tone of the parts. Continued exercise is also of the utmost service.

Dr. Whytt recommends æther and laudanum as the most effectual medicines for expelling wind. He generally gave the laudanum in a mixture with peppermint-water and tincture of castor, or sweet spirits of nitre. Instead of this, he sometimes gave opium in pills with asafætida. The dose of æther is a tea-spoonful mixed with two table-spoonfuls of water.

In cases where it may be improper to give warm medicines inwardly, the doctor recommends external applications; as equal parts of the anti-hysterical and stomach plaster, spread on a piece of soft leather, of a proper size to cover the greater part of the belly; and a table-spoonful of the following ingredients mixed together, and well rubbed on the parts at bed-time: viz. Bates's anodyne balsam, an ounce; the expressed oil of mace, half an ounce; and two drams of oil of mint.

For strengthening the stomach and bowels, and lessening the production of flatulence, he recommends the Peruvian bark, bitters, chalybeates, and exercise.

To

To remove the costiveness which often attends windy complaints, four or five of the following pills may be taken every night at bed-time: Take of *afafætida*, two drams; *succotrine aloes*, salt of iron, and powdered ginger, of each one dram; and a sufficient quantity of the *elixir proprietatis* to form them into pills.

But when the body is too open, twelve or fifteen grains of *rhubarb*, with two scruples of the *japonic confection*, may be taken every other evening with advantage.

Tea, and all flatulent aliments are to be avoided; water, with a small quantity of rum or brandy, is not only preferable to malt liquor, but, in many cases, to wine.

PART XIV.

DISORDERS OF THE SIGHT, TOUCH, HEARING, TASTE, AND SMELLING.

DISORDERS OF THE SENSES.

IT is our intention, in treating of the senses, to confine ourselves to the external ones, as *touch*, *taste*, *smelling*, *hearing*, and *seeing*, or *vision*. The word *sense*, when applied to these five, seems to imply not only the sensation excited in the mind by certain impressions made on the body, but likewise the organ destined to receive and transmit these sensations to the sensorium, or seat of sense. Each of these organs being of a particular structure, is susceptible only of particular impressions, which will be pointed out as we proceed.

OF THE EYES.

THE eyes, which constitute the organs of vision, are situated in two bony cavities, named orbits, where they are surrounded by several parts, which serve to protect

protect them from external injury, or to assist in their motion. The upper border of the orbit is covered by the eye-brows, which by means of their two muscles are capable of being brought towards each other, or of being carried upwards. They have been considered as serving to protect the eyes, but they are probably intended more for ornament than utility. It is observable that the eye-brows are peculiar to the human species.

He who has too prominent an eye, finds his vision improved by means of a concave glass; and, upon the same principles, a convex glass will be found useful to a person whose eye is naturally too flat.

The eyes are injured by keeping the head too long in a hanging or inclining posture; by violent head-achs, excessive venery, the long use of bitters; the small-pox, measles, &c. Long studying, by candle-light; long fasting; all kinds of excess, &c.

Among the multiplicity of diseases to which the eye is subject, the *gutta serena* demands our attention. It is a diminution or total loss of sight, in which the pupil is dilated and immoveable. When occasioned by a decay or wasting of the optic nerve, it will not admit of a cure; but when it proceeds from a compression of the nerves by redundant humours, relief may be obtained. To effect this purpose, the body should be kept open with the laxative mercurial pills; and if the patient be young and of a sanguine habit, bleeding will be necessary. Cupping, with scarifications on the back part of the head, will be found useful. And where there is evidence of the existence of any particular acrimony in the system, that should be corrected: and until this is accomplished, a purulent discharge should be obtained from behind the ears, the pole of the neck, or from some part, as near as can be conveniently had to the head, by issues or blisters; and these should be kept open for a long time.

Vision may be impaired in many other ways. Things will differ in form and colour from what they really are, or will be imperfectly seen, by persons whose eyes have

have no visible defect. These cases, as depending in general upon diminished energy of the optic nerves, will be most probably relieved by electricity and stimulants.

The *cataract*, as only admitting of a cure by surgical operation, need not be further noticed here.

“Redness of the eye,” says Parkinson, “or as it is commonly termed, a *blood-spot* eye, shows that inflammation in the eye has taken place. The little importance which is in general annexed to the term *blood-spot* eye, has lulled many into a false security, until they have been entirely deprived of sight.” “Prescriptions for eye-waters,” continues he, “are so numerous, that you may expect one from me—but I know not one which I can recommend to you to use upon all occasions. For such is the variety of cases in this class, that sometimes applications as cooling as ice, at other times as hot as the eye can bear, are required; nay, sometimes water itself will be too irritating, whilst at other times applications as pungent as brandy will procure speedy relief. The most safe wash is, perhaps, rose or elder-flower water, without any addition. Conserve of roses, so often applied to the eyes on these occasions, is much more likely to injure the eyes, than to relieve them.” *Villager's Friend*, 35.

Dr. Buchan, however, recommends that if this disorder should prove obstinate, “the patient may be bled, and have his eyes fomented with a decoction of comphry roots, and elder flowers. A soft poultice may be applied to the eyes; and the body should be kept open by gentle purgatives.”

In all diseases of the eyes, especially those attended with inflammation, the cool regimen should be observed. The patient must avoid spirituous liquors; smoky rooms, and all acrid fumes and vapours are very injurious, and perhaps few more so than the smoke of tobacco. Caution must be used, not only in viewing highly illuminated and vivid objects, and glaring colours, as little as possible; but even long poring on duller

objects should be avoided. Discharges, to which the constitution has been accustomed, should not be unadvisedly suppressed. The aliment should be light, and easy of digestion, and the drink whey, water, or small-beer.

Issues and setons are essentially useful for preventing disorders in the eyes; and those who have tender eyes should have one or more of these in some convenient part or parts of the body. To bleed or purge every spring and fall, and always to keep the body gently open, will prove highly salutary. Those who object to a seton or an issue, may wear a small Burgundy-pitch plaster between their shoulders, and receive benefit from it.

Mr. Ware, in his ingenious treatise on the diseases of the eye, recommends the dropping of the Thebaic tincture into an inflamed eye. In the hands of this gentleman, and of many other surgeons, this has proved a very powerful remedy: but when used by those who are not able to make the necessary discrimination, between such cases in which it may be used with benefit, and others in which it may prove injurious, very ill consequences may be produced.

As the eye is subject to so many diseases, and most of those diseases are so extremely difficult to cure, we shall conclude this article with the following observations. Applications of this kind must be used with the greatest circumspection; since, should they fail of their wished-for effect, they cannot but be likely to increase the complaint. There are few families who do not possess some lotion for the eyes, which they recommend, as adapted for almost every disease to which the eyes are subject: but certainly, when the various causes of this disease, and the vast number of its species and varieties, are considered, as well as the many affections of the system with which it may be intimately connected; every one must be satisfied that there is no one remedy whatever, which can be had recourse to indiscriminately, in all these cases, without frequently producing considerable mischiefs. *Med. Adm.* 105.

OF THE TOUCH, OR FEELING.

THIS sense may be defined to be the faculty of distinguishing certain properties of bodies by the feel. But the organ of touch, like all the other senses, is not equally delicate in every part of the body, or in every subject; being in some more exquisite than it is in others.

Many parts which were formerly supposed to possess the most exquisite sense, are now known to have but little or no feeling, at least in a sound state; for in an inflamed state, even the bones, the most insensible parts of any, become susceptible of the most painful sensation. This curious discovery is due to the late Baron Haller. His experiments prove, that the bones, cartilages, ligaments, tendons, and membranes, may, in a healthy state, be considered as insensible. As sensibility depends on the brain and nerves, of course different parts will possess a greater or less degree of feeling, in proportion as they are supplied with a greater or smaller number of nerves. Upon this principle it is, that the skin, muscles, stomach, intestines, urinary bladder, ureters, uterus, &c. are extremely sensible, while the lungs and glands have only an obscure degree of feeling.

The sensibility depends on a part's being connected with the brain, by the nerves; for if the nerves going to any part be cut through, the sensibility is lost. If the nerves going to any part are moderately compressed, the sensibility is diminished. If the nerves are compressed strongly, the sensibility is lost.

"Pressure on the brain," says Dr. Fordyce, "may diminish the sensibility of the whole body." And he also says that, "the bones and cartilages do not appear to be sensible in a *sound* state, whatever application may be made to them, but in a morbid one they may become sensible." We shall select another article from the Doctor's Elements, which seems pertinent to our purpose—"Those parts of the body, which are capable of a variety of sensations, are generally called

"the organs of the senses: These are, the skin, the mouth, the nostrils, the eyes, the ears; the stomach is capable of several sensations besides pain, but not of so great a variety as the organs of the senses." *Fordyce's Elements*, 100.

Whatever disorders the functions of the brain and nerves, must injure the sense of touching. It may be injured by any thing that obstructs the nervous influence, or prevents its regular conveyance to the organs of touching: Or it may be injured by too great a degree of sensibility, when the nerve is not sufficiently covered by the cuticle or scarf-skin.

In cases of insensibility or defect of touching, or feeling, arising from an obstruction of the cutaneous nerves, the patient must be purged, and afterwards have recourse to such medicines as will excite the action of the nerves, or stimulate the system. Spirit of hartshorn, sal volatile oleosum, horse-radish, &c. may be taken inwardly. At the same time the defective parts may be frequently rubbed with stinging nettles, or spirit of sal ammoniac. Blistering plasters and sinapisms will also be serviceable. Warm bathing, especially in natural hot baths, will be beneficial.

OF THE EAR, OR HEARING.

THE sense of hearing, in producing which a great variety of parts assist, is occasioned by a certain modulation of the air, collected by the funnel-like shape of the external ear. That sound is propagated by means of the air, is very easily proved by ringing a bell under the receiver of an air-pump; the sound it affords being found to diminish gradually as the air becomes exhausted, till at length it is not heard at all. Sound moves through the air with infinite velocity; but the degree of its motion seems to depend on the state of the air, as it constantly moves faster in a dense and dry, than it does in a moist and rarefied air.

The

The functions of the ear may receive injury from wounds, ulcers, or any thing which impairs its fabric ; or from external substances falling into the ear or sticking to its cavities ; the quality of the wax may be faulty, and be a cause of the ear-ach ; a violent cold in the head, or excessive noise, may also occasion it. Too much moisture, or too much dryness of the ears may produce this complaint ; but the most frequent causes are heat and cold ; and sometimes it proceeds from an acrid serum secreted in the glands of the ear.

The ear-ach often proceeds from a sudden suppression of perspiration, or from the head being exposed to cold when covered with sweat. It may also be occasioned by worms, or other insects getting into the ear.

When the wax, or other humours, are saline, or salt, they excite a pricking pain ; when the salts in these humours are corrosive, they excite a gnawing pain ; when the wax ferments whilst it is yet in the glands, it causes a tight or tense pain ; when the glands are very turgid, or swelled, there is a sense of weight ; and when there is a tumor, a pulsation is perceived, especially if it tends to suppurate.

If the pain is violent it seldom fails to bring on a fever, which is early attended with great restlessness ; and a delirium, fainting, and often convulsions are the consequence ; for the membrane which lines the ear is exquisitely sensible, and fully stored with nerves ; besides, membranes which adhere to bones have a more than ordinary sensibility.

A degree of deafness is incident to most people at an advanced age ; and deafness is frequently owing to an original defect in the structure of the ear itself. If a total deafness is occasioned by the last mentioned defect, dumbness as well as deafness must be the consequence in those who are actually born so, except in some few instances wherein Mr. Braidwood has taught many such persons to read, write, and speak.

A little digression will doubtless be excused on this interesting topic. Dumbness is the privation of the faculty of speech. The most general, or rather the sole cause

cause of dumbness, is the want of the sense of hearing. The use of language is originally acquired by imitating articulate sounds. From this source of intelligence, deaf people are entirely excluded: they cannot acquire articulate sounds by the ear: unless, therefore, articulation be communicated to them by some other medium, these unhappy people must for ever be deprived of the use of language; and as language is the principal source of knowledge, whoever has the misfortune to be deprived of the sense of hearing, must remain in a state little superior to that of the brute creation.

Deafness has in all ages been considered as such a total obstruction to speech, or written language, that an attempt to teach the deaf to speak, or read, has been uniformly regarded as impracticable, till Dr. Wallis, and some others, have of late shewn, that although deaf people cannot learn to speak or read by the direction of the ear, there are other sources of imitation by which the same effect may be produced. The organs of hearing and of speech have little or no connection. Persons deprived of the former, generally possess the latter in such perfection, that nothing further is necessary, in order to make them articulate, than to teach them how to use these organs. This indeed is no easy task; but experience shews that it is practicable.

Mr. Thomas Braidwood, of Edinburgh, is perhaps the first who ever brought this surprising art to any degree of perfection. He began with a single pupil in 1764; and for some years past he has taught many people, born deaf, to speak distinctly, to read, to write, to understand figures, the principles of religion, morality, &c. This, at first sight, may appear to be incredible, but the fact is certain: Mr. Braidwood had, a short time ago, a considerable number of deaf pupils, some of them above twenty years of age, all making a rapid and amazing progress in those useful branches of education.

Mr. Braidwood's principal difficulty, after he had discovered this art, was to make people believe in the practicability of it. He advertised in the public papers; he

he exhibited his pupils to many noblemen and gentlemen; still he found the generality of mankind unwilling to believe him. A remarkable instance of this incredulity occurred some years ago. A gentleman in England sent a deaf girl of his to Mr. Braidwood's care: a year or two afterwards, Mr. Braidwood wrote to the father, that his daughter could speak, read, and write distinctly. The father returned an answer, begging Mr. Braidwood's pardon, but that he could not believe it. However he desired a friend of his, who happened to be going to Edinburgh, to call on Mr. Braidwood, and enquire into the truth of the intelligence he had received; he did so; conversed with Mr. Braidwood, saw the young lady, heard her read, speak, and answer any questions put to her.

On his return, he informed the father of the surprising progress his child had made; but still the father thought the whole an imposition: the girl herself wrote to her father, but he looked upon the letter as a forgery. About this time the father died; and the mother sent an uncle and cousin of the deaf lady's from Shrewsbury, in order to be satisfied of the truth. When they arrived, Mr. Braidwood told the girl her uncle and cousin were in the parlour; and desired her to go and ask them how they did. The friends were astonished, and could hardly credit what they had heard and seen.

To those who have conversed with Mr. Braidwood, concerning the nature and method of teaching this wonderful art, he has expressed himself desirous of communicating and transmitting his discovery to posterity; but he says, and, from the nature of the thing, it appears to be true, that he cannot communicate it so fully in writing, as to enable any person to teach it.

The first thing in the method is, to teach the pupil to pronounce the simple sounds of the vowels and consonants. Those who have seen him perform this operation, are unable to give a clear idea of it. He pronounces the sound of *a* slowly, pointing out the figure of the letter at the same time; makes his pupil observe the motion of his mouth and throat; he then puts his
finger

finger into the pupil's mouth, depresses or elevates the tongue, and makes him keep the parts in that position : then he lays hold of the outside of the windpipe, and gives it some kind of squeeze, which it is impossible to describe. All the while he is pronouncing *a*, the pupil is anxiously imitating him, but at first seems not to understand what he would have him to do. In this manner he proceeds, till the pupil has learned to pronounce the sounds of the letters. He goes on in the same manner to join a vowel and a consonant, till at length the pupil is enabled both to speak and read.

That Mr. Braidwood is capable of teaching his pupils not only the mere pronunciation, but also to understand the meaning of what they read, may be ascertained by a conversation with any of his pupils. Of this Mr. Pennant gives a remarkable instance, in a young lady of about thirteen years of age, who had been some time under the care of Mr. Braidwood.—“She readily apprehended,” says he, “all I said, and returned me answers with the utmost facility. She read; she wrote well. Her reading was not by rote. She could clothe the same thoughts in a new set of words, and never vary from the original sense.”

It is useless to say more concerning the mode of operation. Mr. Braidwood undertakes every deaf person, who is not, at the same time, foolish or idiotical. The greatest misfortune is, that this art is confined to a single man, and his pupils must live in the house with him for some years. The expence necessarily attending education of this kind, excludes all but people of opulent circumstances from deriving any advantage from it.

Having finished this kind of digression, though not wholly inapplicable to the subject under consideration, we shall return to the investigation of the causes, and cure of the diseases of the ear.

When deafness is the consequence of wounds or ulcers of the ears, or of old age, relief is not easily obtained. When it proceeds from cold of the head, the patient should be particularly careful to keep his head

head warm, especially in the night. He should also take some gentle purges, keep his feet warm, and bathe them frequently in warm water at bed-time.

In the beginning of the ear-ach, whilst the pain is not very considerable, a little warm olive oil dropped into the ear will often relieve. When acrid disfluents are the cause, inject a warm infusion of poppy heads in water. When living insects have crept into the ear, blow the smoak of tobacco in it, and then pour in warm oil.

Parkinson says, "A flannel bag filled with camomile flowers, wrung out of boiling water, then sprinkled with spirits and applied very warm over the ear, and repeated for an hour together, renewing it as soon as cool, will frequently produce very considerable benefit in the ear-ach."

Deafness, brought on by a fever, generally goes off on the recovery of the patient. When occasioned by dry wax sticking in the ears, dropping oil into them will be found useful, and they may afterwards be syringed with warm milk and water.

In case of deafness proceeding from dryness of the ears, half an ounce of the oil of sweet almonds, with an equal quantity of liquid opodeldock may be mixed together, and a few drops of the mixture put into the ears at bed-time. A little cotton or wool may be afterwards applied to stop them. Ears abounding with too much moisture, may be drained by an issue or seton near the part affected. Where the deafness is of long continuance, blistering behind the ears may assist the cure.

Great caution should be used, however, in applying remedies to the eyes and ears, as they are very tender organs, and much mischief, instead of benefit, may sometimes ensue. In all cases of deafness, from whatever cause, the patient should always be particularly careful to keep his head warm.

OF THE TASTE.

THE sense of taste is seated chiefly in the tongue; the situation and figure of which are sufficiently known. On the upper surface of this organ, we may observe a great number of papillæ or emulgent vessels resembling nipples, which, on account of their difference in size and shape, are commonly divided into three classes. The largest are situated towards the basis of the tongue. Their number commonly varies from seven to nine. Those of the second class are somewhat smaller, and of a cylindrical shape. They are most numerous about the middle of the tongue. Those of the third class are very minute, and of a conical shape. They are very numerous on the top and edges of the tongue, and have been supposed to be formed by the extremity of its nerves.

The veins of the tongue empty themselves into the external jugulars. The variety of tastes seems to be occasioned by the different impressions made on the papillæ by the food. The different state of the papillæ with respect to their moisture, their figure, or their covering, seems to produce a considerable difference in the taste, not only in different people, but in the same subject, in sickness and in health.

The great use of the taste seems to be to enable us to distinguish wholesome and salutary food from that which is unhealthy; and we observe that many quadrupeds, by having their papillæ very large and long, have the faculty of distinguishing flavours with infinite accuracy.

When the taste is diminished or depraved with film, warts on the tongue, a fault of the saliva, &c. the tongue ought to be scraped and often washed with some detergent, as a mixture of water, vinegar, and honey. When the saliva is vitiated in fevers and other disorders, that symptom is generally cured in the cure of the respective disorder. But if a bitter taste remains,
it

it may be removed by vomits, purges, &c. An acid taste is taken away by absorbents, and alkaline salts, as powder of oyster-shells, salt of wormwood, &c. A nidorous, or roast-meat taste, arising from putrid humours, may be corrected by the juice of oranges, and other acids, and a salt taste is cured by plenty of diluting beverage.

There being a great affinity between the organs of tasting and smelling, whatever proves injurious to the one, has generally a similar affect upon the other.

OF SMELLING.

THE sense of smelling, like that of taste, seems intended to direct us to a proper choice of aliment, and is chiefly seated in the nose, which is distinguished into external and internal parts. The situation and figure of the former of these do not seem to require a definition. It is composed of bones and cartilages, covered by muscular fibres, and by the common integuments. The bones make up the upper portion, and the cartilages the lower one.

In many quadrupeds the sense of smelling is much more extensive and delicate than it is in the human subject; and in the human subject it seems to be more perfect the less it is vitiated by a variety of smells.

When we wish to take in much of the effluvia of any thing, we naturally close the mouth, that all the air we inspire may pass through the nostrils; and at the same time, by means of the muscles of the nose, the nostrils are dilated, and a greater quantity of air is drawn into them.

What is usually called the olfactory or smelling membrane, is the true organ of smelling; but its real structure does not seem to be perfectly understood. It appears to be a continuation of the cuticle or scarfskin, which lines the inner surface of the mouth. In some parts of the nose it is smooth and firm, and in others, it is loose and spongy. It is constantly moistened by a

mucous secretion; the finer parts of which are carried off by the air we breathe, and the other by being retained in the folds, acquires considerable consistence.

Diseases of various kinds may destroy or diminish the sense of smelling; as the moisture, dryness, or inflammation of the olfactory membrane; or some defect in the nerves destined to supply that membrane. Great quantities of snuff are also injurious to the sense of smelling.

When the moisture of the nose is abundant, after gentle evacuations, apply such things as are calculated to take off irritation, and coagulate the thin sharp serum; as the oil of anise mixed with flour, camphire dissolved in oil of almonds, &c. The vapours or fumes of frankincense, amber, and gum benjamin, may also be drawn in at the nose and mouth.

The steam or vapour of vinegar upon hot-iron, snuffed up the nostrils, is essentially useful for softening the mucus, when it is too dry, opening obstructions, &c. Snuff composed of the leaves of marjoram, mixed with oil of amber, marjoram, and aniseed, will be found salutary.

If the sense of smelling is impaired or become defective, let volatile salts, strong sternutatories, or other articles which occasion sneezing, be applied to the nose. The patient may also anoint his forehead with balsam of Peru, to which a small quantity of the oil of amber may be added.

OF A SCIRRHUS AND CANCER.

THE parts usually affected by this disease are the breasts of women, the arm-pits, nostrils, or some other glandular part of the body of men. A scirrhus in the breast commences with a very small, hard, and moveable kernel, which often remains a considerable time, without pain, and without increase of magnitude.

While it continues in this state, authors have generally called it occult; and when suppuration has taken place

place, and the cancer discharges, they have named it the open cancer. It often remains long in the occult state; and when it suppurates and breaks, it degenerates into an ulcer of the worst kind, with ragged and extremely painful edges, discharging a most fetid acrimonious matter; which is frequently in so great a degree as to destroy the neighbouring integuments, and to be intolerably offensive. When it has arrived at this state, the yeins which run under the skin are enlarged, and the skin itself becomes discoloured in several parts; a fluid is discoverable underneath these discolourations, which exudes when ulceration takes place.

“That most dreadful malady, the cancer of the breast,” says Mr. Parkinson, “always begins with an *exceeding small kernel*, which, in that state, may be removed with a degree of pain infinitely less than is apprehended. Immediately therefore on the appearance of such a kernel on the breast, let its nature be ascertained, by one whose opportunities of information are such as will render you confident in his opinion, and by that be guided; considering that it is highly preferable to undergo a few moments pain, and obtain relief to your mind, than to suffer the gradual increase of a disease which must become daily more painful, and at last *must terminate in death*.”

—“Be assured,” continues he, “that for this disease there is *no remedy known*. Medicines which have been reported to have been used with success by quacks, and others, have had the fairest trials, by surgeons of the first abilities, but have been found *unsuccessful*.”

Of this opinion is Dr. Temple, who says, “For this dreadful disease no certain internal remedy is yet known. The cicuta has long been tried but without *much success*, and the arsenicum has been given; and it is thought has produced some good effects; but it affects the lungs in general so much, that few constitutions can bear its use either in sufficient quantity, or for a length of time, necessary to produce any considerable or permanent benefit.”

Others

Others have given their opinion more decidedly to this effect. A celebrated surgeon says, "The cancer is one of those diseases for which no competent remedy has yet been found, not even when taken early or in its occult state. The most that medicine can do is to palliate, or keep it back by diet and general remedies" *Le Clerc. Treat. Chir. Oper.* VIII, 198.

Many respectable authors, both ancient and modern, might be quoted in support of this opinion; however, in the Memoirs of the Royal Academy of Sciences, mention is made of the radical cure of three inveterate cancers, by an infusion of the leaves of plumbago in olive oil: these cancers had been deemed incurable by reason of their adherence to bony parts. *Mem. Acad. Sc.* 1739.

Though a scirrhus may be truly deemed a cancer as soon as pain is perceived in it, yet every painful tumour is not a cancer, nor is it always easy to say whether a cancer is the disorder or not: irregular hard lumps may be perceived in the breast, but on examining the other breast where no uneasiness is perceived, the same kind of tumours are sometimes found, which renders the diagnostics uncertain.

Hence many impostors have acquired the character of *cancer-curers*; for it is necessary to observe, that, "tumours in the breast frequently succeed to the inflammation of the breast, arising from retention of the milk, which, although they are certainly not of a cancerous nature, do often possess those appearances which render it very difficult to make the necessary distinction, and will continue under that form for several months, and at last resolve, perhaps, by the application of a bread and milk poultice. These are the cases which prove so favourable to the character of this class of practitioners. From their size, hardness, and length of duration, they commonly gain from the patient and her friends the epithet of cancerous; and should any professional man, deceived by an imperfect history, drop a suspicion of an unfavourable termination of the case, the foundation is laid on

"on which the reputation of some ignorant pretender
"may be raised." *Med. Admonitions.*

CAUSES. The causes of scirrhus are the remote causes of most cancers, and are whatever can coagulate or dry the juices, prepared in or received by the glands. —The matter thus obstructed, destitute of the means of being resolved, or changed into pus, or matter, may lodge many years without molesting; but when by any cause the motion of the humours is increased, through the adjacent pervious vessels, an inflammation is produced, and pain and heat come on: thus the scirrhus, which hitherto was dormant and inert, now acquires an acrimony, by which the containing parts are irritated and corroded.

Sorrow, and other disturbance in the mind, easily converts a scirrhus into a cancer. The vessels of the distended glands become preternaturally sensible, whence it becomes more easy for any cause of local inflammation to cause a cancer. When a scirrhus so enlarges, as to be affected by the heat or pressure of the adjacent parts, it soon becomes cancerous. Sparing, or obstructed periodical excretions are the frequent causes of this disorder. Gouch and Turner give instances of cancerous ulcers being produced by touching cancerous matter with the tongue.

Celibacy, as well as the cessation of the menses, conduces to the production of cancers in women, whence antiquated maids are the most subject to them; next to these are those mothers who have not suckled their children; then may be reckoned those women who are past child-bearing; and the least so are men, and those women who have bore children, and nursed them with their own milk. Hollerius observes, that girls are subject to glandulous tumours whose menstrual discharges are scanty.

This disorder may be occasioned by any of the depressing passions, or by the long-continued use of food too hard of digestion; indolence; by wearing tight stays, and thereby occasioning too much pressure on the breast; by cold, blows, friction, or the like. Sometimes

times it is owing to an hereditary disposition. Persons beyond the age of forty-five, particularly women, and those who lead a sedentary life, are most liable to this complaint.

REGIMEN. The diet should be cool, moist, and light; the mind should be tranquil, and the body free from violent action. Though, as already observed, this is a disease for which no certain remedy is yet known, its progress may, however, be sometimes retarded, and some of its most disagreeable symptoms mitigated by proper applications. Strong liquors must be avoided, and all high-seasoned or salted provisions. The patient should take as much exercise as he can conveniently bear, and carefully guard the affected part from all pressure, and even from the external air, by covering it with fur or flannel.

CURE. Were proper means used in the early stage of the complaint, a cancer might often be cured; but when it has arrived at a certain height, it generally sets all medicines at defiance. It is to be lamented that the unhappy patient frequently conceals his malady too long. When a scirrhus tumour is discovered, the patient should confine himself to a proper regimen, and take a dose of the common purging mercurial pill twice or three times a week. He should also lose some blood, and gently rub the part affected twice a-day with a little of the mercurial ointment. It will be necessary also to keep it warm with fur or flannel. A pint of the decoction of the woods or sarsaparilla may be drank daily. Some hard tumours, which had the appearance of beginning cancers, have sometimes been dissolved by a course of this kind.

If the tumour, however, instead of yielding to this treatment, should become larger and harder, it should be extirpated by the knife. Whenever this can be done with safety, not a moment should be delayed; when the constitution is ruined, or the whole mass of humours vitiated by a cancer, of what use will it then be to extirpate it?

After mentioning that this disease commences with an exceeding small kernel, the Medical Admonisher observes,

observes, "If upon a proper examination, which immediately on its discovery should be obtained, this *small kernel* be ascertained to be a true scirrhus, the patient should consider that nothing but its speedy removal, *by the knife*, can be depended on to prevent its termination in cancer. It should also be considered that, during this state of the disease, the operation is comparatively trivial, and requires but very little time for its performance; that the pain which accompanies it is very far short of that which is imagined; and that the exemption from future disease is rendered by it, almost certain."

Dr. Temple says, "The best practice in the first stage of this disease, in the present ignorance of an effectual internal remedy, is, extirpation *with the knife*, when the cancer is moveable and not attached to any bony parts, and when its local situation does not render the operation improper."

A cure is hardly ever made but with the knife or cautery; when these methods of relief are not used, the treatment is only palliative. If the tumour firmly adheres to the subjacent part, it can neither be extirpated nor wasted by a caustic: if it is moveable, it may be generally taken away, if at a due distance from such blood vessels as would endanger life by being wounded.

If the cancer is so situated that it cannot be cut off, or if the patient flinches from the operation, such medicines should be administered as will mitigate or relieve the most urgent symptoms. Dr. Home recommends an infusion of the solanum, or night-shade, in cancers of the breast; and, for cancers of the face and nose, half a grain of the corrosive sublimate of mercury, dissolved in a proper quantity of brandy, and taken night and morning.

Dr. Stork has bestowed extravagant encomiums on the extract of hemlock in the cure of this disease; and the powder of hemlock is by some preferred to the extract.

Soultzer, physician to the duke of Saxe-Gotha, after observing that an effectual cure for a cancer is still among the desiderata of physic, and that mercury, antimony, and all alteratives, as well as the belladonna and cicuta, have generally failed, recommends the following poultice: take carrots fresh drawn, and reduce them to a coarse powder, squeeze out the juice and warm the pulp, and apply it in the form of a thick poultice, so that it may touch the ulcers in every part; and let the whole be covered with a warm napkin. The dressing must be renewed twice in every four hours, and the ulcers cleaned with lint dipped in a warm decoction of hemlock. This application, he says, will abate the pain, take away the loathsome smell, diminish the suppuration, and produce the discharge of a laudable pus. By continuing the use of it, the callous edges of the ulcers will be softened, the tumour diminish, and at length disappear; new flesh will be generated, a cicatrix will be formed, and the cure completed. The extract of hemlock may be safely administered at the same time.

Two or three pints of wort, or an infusion of malt, may be drank every day, and much benefit is said to result from it; but it must be frequently made fresh; and it must be persisted in for a long time before any considerable benefit can be expected from it. A disease of this kind is too obstinate to be shortly removed; and where it does admit of a cure, a total change of the habit must be effected, which requires much time, as well as judgment to bring about.

Setons or issues, at a convenient distance from the cancer, are often found useful.

The frequent application of leeches at a proper distance from the cancer is often recommended.

If a cure is to be effected by extirpating the tumour, and if this method of relief is attempted, care must be taken to remove all other cancerous tumours, the whole of each must be cleared away, and the habit of body must be corrected as much as possible; and when the wound is nearly healed, it may be kept open in the manner of an issue.

A slight inflammation in the neighbourhood of the tumour, which yet is in a scirrhus state, may be relieved by means of Goulard's saturnine water, and thus is hindered from denegerating into a cancer; but if the inflammation is considerable, a cancer cannot be prevented.

All other medicines having failed, recourse may be had to opium, as a kind of solace. Though this will not cure the disease, it will ease the agony of the patient, and render existence more tolerable.

Persons after the age of forty-five, particularly women, and those who lead a sedentary life, are most subject to this disease.

OF THE DISEASES OF CHILDREN.

GENERAL OBSERVATIONS.

IT is observable, that all infants are not equally exposed to distemperatures of many kinds, but the children of persons of tender constitutions and indolent lives are most subject to them. The children of the poorer classes of the people, who are usually brought up hardily from the first, are also less troubled with disorders, in general, than those which are taken most care of; and all their lives afterwards are much better able to bear external injuries, and are much less affected by them.

Of the diseases of children, the far greater number are wholly owing to external causes; very few of them to any internal fault in the constitution. The principal of these external causes are the following:

Changes of the temperature of the air. These are brought on at the nurse's pleasure, and the infant is often thrown into profuse sweats by a close room, and too warm a covering; and, perhaps, in the midst of this sweat, is immediately taken from under that covering, and exposed to the open air. To this are

owing most of the catarrhal affections to which infants are subject, and their fevers and cutaneous eruptions of the several kinds.

Improper food or aliment, is another great source of the diseases of infants. Nurses sometimes starve children, but more frequently they cram them with more food than is necessary; and, besides these irregularities with regard to quantity, errors in quality are not less prejudicial. A thin and bilious milk throws them into gripings of the bowels, and bilious diarrhæas; and milk, when it is too thick, occasions stuffings or stoppages at the breast, and sometimes suffocative catarrhs. And finally, the milk of a person, who has a remaining taint of the venereal disease, subjects the child to breakings-out, and ulcers of various kinds.

Motion and rest, improperly managed, are also the sources of many of the complaints of children. Nothing is more injurious to the health of a child, than that frequent custom of idle nurses of rocking a child to sleep, whether it will or not; the violent and continual motion, in this case, often gives the child a vertigo, which it never afterwards can get rid of. It is a fortunate circumstance, however, for children, that the rage for cradle-rocking is now much on the decline.

We have already observed, that the binding of children too tight in their dress, is another great cause of disorders, by obstructing the due motions of nature in the circulation of the blood. The putting children too soon on their feet, and compelling them to walk too early, is also the cause of many mischiefs. And nothing is more pernicious than the frequent disturbing them out of their sleep; as it makes them peevish and torpid, and sleepy at other times.

The suppression of the natural excretions is also the origin of many disorders; and though this may sometimes happen from an innate cause in the infant, it much oftener is owing to the perverseness of the nurse in feeding on acid foods, or such as are hard of digestion; and exposing the child, as well as her own breasts, to the cold air, when they are hot.

From

From the great tenderness of their parts, infants are much more subject to the severity of diseases than grown persons; yet experience shews us, that they usually get through them with less danger. An instance of this is evident in the small-pox, from which people in general escape much better when young than at any other time. Convulsions, violent hiccups, and severe and almost continual crying, are observed very often to be fatal to children in the first six weeks; but are much less dangerous afterwards: and convulsions, become habitual to children, though they may be frequent in their returns upon every slight occasion, are found much less dangerous than in other cases. Diseases in general come to a shorter period in infants than in grown persons.

Most of the diseases of children, in the early stage, arise from their bowels, and are to be cured by gentle correctives and evacuants; and of these the very mildest in their operation are always to be chosen. The use of gentle vomits is safe and proper. Mix five or six grains of the powder of ipecacuanha with two table-spoonfuls of water, and sweeten it with a little sugar; and give the infant a tea-spoonful of the mixture every quarter of an hour till it operates; or a grain of emetic tartar, dissolved in three ounces of water, sweetened with a little syrup, may be given as above; or six or seven drops of the antimonial wine may be administered in a tea-spoonful of water or thin gruel.

These medicines will generally cleanse the stomach and open the body; but if the child should be costive, some manna and pulp of cassia may be dissolved in boiling water, and given in small quantities till it operates. Or mix a few grains of *magnesia alba* in any kind of food that is given to the child, and continue so to do till it has the desired effect,

IMPERFORATIONS, OR OBSTRUCTIONS OF THE NECESSARY PARTS.

IT sometime happens in infants, that there is either no passage for the stools, or for the urine; sometimes for neither. This indeed is not a common case, but when

when it occurs, speedy help must be had, or the infant perishes. In cases where the passage is regularly formed, but is only stopped by the mucous matter, which sometimes happens, the gentle abstersgents are to be given, as the crabs-eyes, or some other absorbent, half sated with an acid; and recourse must be had to the use of a small catheter or clyster-pipe. But when there is a preternatural membrane formed, which stops the passages, this must be cut through by a surgeon.

The nostrils of infants are frequently plugged up with a gross mucus, which prevents their breathing freely, and also renders it difficult for them to suck or swallow. In obstinate cases, after a suitable purge, two or three grains of white vitriol, to which some add the same quantity of elaterium, dissolved in half an ounce of marjoram water, and filtered, may be applied now and then to the nostrils with a linen rag. But in common it will be sufficient to rub the nose at bed-time with a little sweet oil, or fresh butter.

OF THE MECONIUM.

THE stomach and bowels of a new-born infant contain a quantity of blackish coloured matter, usually called the *meconium*. This is generally passed soon after the birth by the mere effort of nature, without administering any kind of medicine to the infant. But if it should be retained, or not completely carried off, a little *magnesia alba* may be given; or a common spoonful of whey, sweetened with honey, or raw sugar, will perhaps answer the purpose.

Some physicians, however, object to the early purging of the meconium; because it is not necessary to discharge this out of the body before it has acquired an acrimony, and tendency to do prejudice; but it can never be proved that these excrements of infants, which have remained for so many months in the intestines without any detriment, should be immediately discharged, as obnoxious, by a purge. And, indeed, upon an accurate enquiry, we find that there is not that acrid and venomous quality in the meconium as is generally

generally supposed; for it is contained, for several months, in the very tender alimentary tube; and yet does not produce an inflammation, or corrosion of the intestines, or excite them to discharge it; nor stimulate the colon, where it principally resides; nor does it, on account of any contracted putrefaction, emit fetid flatulencies and exhalations; nor is it dried with heat, but, as the dissections of infants dying immediately after their birth, shew, has the consistence of honey, and is without smell.

But where nature is not able to perform this business in time, it is absolutely expedient to assist her with a gentle stimulus, especially since we have known that violent gripes, inquietudes, watchings, ruptures, obstinate costiveness, convulsive motions, and other symptoms, have arose from too late an evacuation of the meconium; because these excrements not only very tenaciously adhere to the coats of the intestines, and often, as it were, glue them together, but also, upon the access of milk to them, even the best assume a very different nature, and that very prejudicial; whence some women are induced to suffer their new-born infants to fast for twenty-four hours; and in the mean time give them honey and butter, lest the milk, the body being not yet purged, should coagulate into a curd.

But, in less urgent cases, the mother's milk is generally found to be the most proper medicine for expelling the meconium, as it always is, at first, of a purgative quality. If children were permitted to suck as soon as they display an inclination for the breast, medicine would not often be required to discharge the meconium.

OF THE APHTHÆ OR THRUSH.

THIS is frequently a symptomatic affection, attending putrid diseases, and as such will disappear with the removal of the primary disease. It most commonly affects infants, and is then called the thrush. In this complaint infants are found to have their tongues covered with little whitish ulcers, affecting also the whole of the inside of the mouth; and sometimes reaching through

through the whole intestinal canal, causing great pain and soreness in the mouth, griping, and purging, great inquietude, and fever. In this case the disease is very dangerous and often terminates the infant's life.

Such ulcers in the mouth seldom happen to grown persons, except they are preceded or attended by some considerable disorder of the system. In children they often occur, even when they appear, in other respects, perfectly well. Improper food is perhaps a principal cause, as those children who are robbed of their natural food, and crammed with mixtures of bread and water, cinnamon waters, wine, or some other hot and inflaming liquor almost as soon as they are born, seem much more disposed to this complaint, than those whose mothers are able and willing to furnish them with that food which nature has appointed for them.

Children attempted to be dry-nursed are very frequently afflicted with this disease. Gripings, looseness, rapid loss of strength and flesh, almost certainly announce the speedy death of the hapless little victim, doomed to perish for want of that nutriment which nature had bounteously provided.

Confined and impure air may occasion this disease, as well as want of attention to cleanliness and ventilation: or it may proceed from a disordered state of the stomach and bowels.

In the treatment of this disease, regard must be had to the supposed cause of it. If the kind of food with which the child has been supported, has not been sufficiently nutritious, that fault must be corrected; the child must breathe a purer air, and due attention must be paid to the state of the bowels.

If the ulcers are pale, pellucid, few in number, soft, superficial, and easily fall off, no danger is to be apprehended; but if brown, opaque, yellow, black, thick, or running together, the consequence is alarming.

The most proper medicines for this disease are vomits of ipecacuanha, emetic tartar, or antimonial wine. Take five grains of rhubarb, and half a dram of magnesia
alba,

alba, rub them together, and divide them into six doses; one of which may be given every four or five hours till they operate. These powders may either be given in the child's food, or in a little of the syrup of pale roses, and repeated as often as there may be occasion to keep the body open. Calomel has been sometimes used; but it often occasions gripes, and sometimes convulsions, and therefore should be given to infants with the greatest caution.

Gargles have been recommended for the mouth and throat in this disease; but these cannot be easily applied in very tender infants. Some persons, therefore, recommend it to the nurse to rub the child's mouth frequently with a little borax and honey, or with the following mixture: Take an ounce of fine honey, a dram of borax, half a dram of burnt allum, and two drams of rose-water; mix them together. A solution of ten grains of white vitriol in eight ounces of barley-water is a very proper application in this case. It has been customary to apply these with the finger, or by means of a bit of soft rag tied to the end of a probe. But hear what a modern writer has said upon this occasion:

"I cannot allow this opportunity to pass without
 "calling the attention of parents to the cruel practice,
 "frequently adopted by nurses, of cleansing the mouths
 "of children afflicted with the thrush, by rubbing the
 "inside of their mouths roughly, with a piece of linen
 "cloth wrapped round a piece of stick, and dipped
 "in a mixture of Armenian bole and honey. Who-
 "ever has witnessed this operation, must have perceived
 "that it has occasioned the little sufferer very consider-
 "able pain: and a very little consideration will serve
 "to convince, that the pain thus inflicted is unnecessary.
 "The aphthous sores, which constitute the thrush, are
 "filled by gangrenous sloughs; these either adhere to
 "the living parts, or are separated from them. If the
 "former be the case, there is very little likelihood that
 "the sloughs will be removed by friction, however
 "severely employed: if, on the other hand, a sepa-
 "ration have taken place, no force is necessary for their
 "No. 10. 3 D removal.

“removal. In both cases, it is entirely sufficient, that
 “whatever applications are resolved on, should be of
 “a tenacious consistence, and be put into the child’s
 “mouth from the end of a tea-spoon; the action of
 “the child’s tongue, which necessarily follows, being
 “quite sufficient for the diffusion of the remedy, and
 “for its application to the affected parts.” *Med. Adm.*

If the milk of the nurse is in fault in this disease, she should be changed.

And when the disease continues obstinate, with purging griping stools, Dr. Temple recommends the application of a small blister, the size of a shilling or half-crown, according to the age of the child, to the region of the stomach, and to give a tea-spoonful of some bitter infusion twice or three times a-day. *Temple’s Pract.*

If there are inflammatory symptoms, it will be necessary to take away some blood; in general, however, it gives way to absorbents, joined with laxatives.

SCALD HEAD.

IN this disease little ulcers appear at the roots of the hair, from whence proceeds a discharge, which usually dries on the part in a hard white crust. Sometimes a great part of the head is affected, and the discharge is then so considerable as to keep the diseased parts in a moist state, and the scalp has the appearance of a honeycomb. It is a contagious disease, therefore those who are attacked by it should be carefully separated from other children. It often proceeds from want of attention to cleanliness, and is supposed to be a symptom of scrofula.

The scald head is best cured by shaving the head close, and the repeated application of blisters to the diseased parts; but before they are applied, the *ung. citrin.* may be tried. If the disease should spread itself over a considerable part of the head, the whole head should be shaved; but if it is not extensive, the removal of a part will be sufficient, and the remainder should be carefully washed and cleansed with strong soap-suds.

The sores themselves may be rubbed with the *unguentum hydrargyri nitrati* of the shops; or with an ointment composed of one part of the powder of white hellebore, and two parts of flour of sulphur, with a sufficient quantity of tar to make it into a proper consistence. When the hairs appear to be loosened, let them be pulled out, and for this purpose some adhesive plaster should be applied, which, on its removal, will remove the hairs with it.

This disease is so important in itself, and its consequences so much to be dreaded, that an early removal of it is highly expedient; regular surgical assistance should therefore, if possible, be procured; as the propriety of an early and judicious opposition to this disease must be sufficiently obvious.

HYDROCEPHALUS, OR WATERY HEAD.

THOUGH this melancholy disease may affect grown persons as well as children, yet as the latter are more peculiarly liable to it, we have classed it among the diseases of infants.

This disease may be the consequence of an original weak habit of body, or it may proceed from an original laxity or weakness of the brain; from scirrhus tumours or excrescences within the skull; from lingering diseases, which waste and consume the patient; from a thin watery state of the blood; or from violent injuries done to the head itself by falls, blows, &c.

A blow on the head from a school-master or parent, when inflicted unmercifully, has often produced the most serious consequences. The correction of children in the moment of passion, is not always within those bounds which the parent would, in his cooler moments, attempt to justify. A box on the ear, or a blow on the head with the open hand, is the most ready and common punishment, and therefore most generally adopted when passion enforces immediate correction. But when the tender fabric of the brain is duly considered, and that a blow to inflict the pain intended for the punishment of a provoking offence, cannot fail

of giving a considerable jar to the head, it is but reasonable to suppose that it may occasion this dreadful malady.

This disease, which generally occurs within the first ten years of life, sometimes comes on suddenly, but usually commences with a slow fever, and is then accompanied by such symptoms as render it likely to be mistaken for an attack of the slow nervous fever. The arms and legs are moved with reluctance, and the fatigue of an erect posture is such, that the patient is always desirous of being laid down; the pain in the head is more constant than in the low nervous fever: the heaviness is more evident, and the pulse is also usually very slow and irregular. The patient complains of a pain in the crown of his head, or over his eyes; he avoids the light, is sick, and sometimes vomits. Though apparently dull and heavy, he does not sleep; he is sometimes delirious; his senses and faculties become evidently impaired; and his sight is so particularly affected, that he frequently sees objects double; the pupils are generally dilated. Towards the end of this commonly fatal disease, the urine and stools are passed involuntarily, the pulse becomes more frequent, total blindness comes on, the cheeks are flushed, the patient lays in a comatose or drowsy state, and convulsions ensue.

No medicine has yet been discovered which will carry off this disease. Those generally administered are purges of rhubarb or jalap with calomel, and blistering plasters applied to the neck, or back part of the head. To these may be added diuretics, or medicines which promote the secretion of urine, such as are recommended in the common dropsy. A discharge from the nose should also be procured and promoted, by causing the patient to snuff the powder of asarum, white hellebore, or the like.

Some practitioners have lately pretended to cure this disease by the use of mercury, but we have heard of no instances of its having been administered with success; we will venture to declare, however, that the treatment

treatment of it ought only to be confided to the most judicious and experienced. On the appearance of symptoms resembling those mentioned above, respecting the dropfy in the head, or watery brain, let the patient, or rather his friends on his behalf, apply directly to a most respectable professional man, or to some charitable institution.

OF CONVULSIONS IN CHILDREN.

AMONG the most frequent causes of convulsions may be enumerated teething; the approach of the small-pox, measles, or other eruptive diseases; the irritation from worms; strait cloaths or bandages; the repelling of eruptions on the skin; the incautiously drying up of some discharge; the distention of the stomach or intestines with wind; acute pain; and breathing too long a vitiated air. Whatever greatly irritates or stimulates the nerves may occasion convulsions.

When convulsions are occasioned by an irritation of the stomach or bowels, whatever clears them of their acrid contents, or renders these mild and inoffensive, will generally perform a cure. When costiveness has preceded, the best way will be to begin with a clyster, and afterwards to administer a gentle vomit, which may be repeated occasionally. It will be proper, in the mean time, to keep the body open by gentle doses of *magnesia alba*.

If convulsions arise from a repression of sweats, the common alexipharmics are given, and in the intermediate times small doses of *mercurius dulcis*.

When convulsions are the consequence of painful dentition or cutting of the teeth, recourse should be had to gentle evacuations, blistering, and antispasmodic medicines, as the tincture of foot, *asafætida*, or castor. A few drops of any of these mixed in a cup of white-wine whey, may be given occasionally.

If, from the symptoms which have occurred, the presence of worms may be suspected, a calomel purge may be given as soon as the child can swallow; and a clyster

clyster may be administered, made by dissolving a few grains of aloes in water or milk, with the addition of a small portion of oil. The quantities must be regulated by the age of the patient.

Convulsions which are the forerunners of the small-pox or measles, generally go off when the eruptions make their appearance: When they proceed from any external cause, as a pressure from tight cloaths, bandages, &c. these ought to be instantly removed, which would tend greatly to accelerate the patient's recovery, with other methods which prudence would point out.

When a child is seized with convulsions, where the exciting causes cannot be ascertained, and where the most appropriate methods of treatment have not succeeded, the following methods may be adopted. If the blood-vessels of the face are turgid or bloated, the eyes red, and the countenance has a crimson hue, blood may be taken from the arm by a lancet, or from the temples by leeches. Let the feet and legs be also bathed in warm water; and, where no considerable determination to the head appears, spirits of hartshorn, or sal volatile, may be held to the nostrils, and rubbed on the temples, &c.

When the disease proceeds from an original fault in the structure of the brain itself, little reliance can be had on the aid of medicine; but as this is not always the cause, even of convulsions which proceed immediately from the brain, some attempts should be made to remove them; as by making some derivation from the head, by blistering, purging, &c. On the failure of these, issues or setons may be tried in the neck, or between the shoulders.

An absurd opinion has prevailed that a physician is not required in the diseases of children, because they are incapable of describing their complaints; but we beg leave to declare ourselves of a very contrary opinion. Dr. Underwood, in his *Treatise on the Diseases of Children*, combats this vague assertion in the most pointed terms: He asserts, "That, although infants
" can give no account of their complaints, in the man-

" ner

"ner we receive information from adults, their diseases
 "are all plainly and sufficiently marked by the coun-
 "tenance, the age, the manifest symptoms, and the
 "faithful account given by the parent, or an intelligent
 "nurse. This I am so confident of, that I never feel
 "more at my ease, in prescribing for any disorders,
 "than those of infants; and never succeed with more
 "uniformity, or more agreeable to the opinion I have
 "adopted of the seat and nature of the disease. Every
 "distemper may be said, in some sense, to have a
 "language of its own, and it is the business of a
 "physician to be acquainted with it; nor do those of
 "children speak less intelligibly. Limited as is human
 "knowledge in every department, there are yet certain
 "principles and great outlines, as well in physic as in
 "other sciences, with which men of experience are
 "acquainted, that will generally lead them safely be-
 "tween the dangerous extremes of doing too little or
 "too much; and will carry them successfully, where
 "persons who want those advantages cannot venture to
 "follow them. Let me ask then, is it observation and
 "long experience, that can qualify a person for the
 "superintendence of infants, or the treatment of their
 "complaints? Surely all these fall eminently to the
 "share of regular practitioners, to the utter exclusion
 "of nurses and empirics."

Surely the occurrence of circumstances so ambi-
 guous, as are perceived in the diseases of children,
 demand the closest investigation of even the most in-
 telligent physician.

OF TEETHING.

THE complaints occasioned by dentition, or teeth-
 ing, are numerous, and very often dangerous; owing,
 in a great measure, to the extreme delicacy and ex-
 quisite sensibility of the nervous system at this early
 time of life; feverish complaints, inflammation of the
 lungs, and other important parts, convulsions, gan-
 grenes, &c. frequently arising from this cause.

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The two front teeth in the lower jaw usually appear first; though seldom before the fourth, or after the tenth month of the child's age. The next which make their appearance are the two opposite ones in the upper jaw; and the remainder appear in irregular succession.

The symptoms of teething are swelling, redness, and spreading of the gums, and flushings of the cheeks; and the children about that time have generally a looseness. When the teething is difficult, especially when the *canini*, or dog-teeth begin to make their way through the gums, alarming symptoms arise; such as violent convulsive fits, cough, shortness of breathing, and acute fever. The child has also startings in his sleep, and tumours of the gums.

Difficult and painful dentition requires nearly the same treatment as an inflammatory disease; care should be taken that the child's bowels are kept rather open, either by emollient clysters, or gentle purgatives; as *manna*, *magnesia alba*, *rhubarb*, or *senna*; and the food should be rather lightened, both in quantity and quality. The drink should be plentiful, but weak and diluting. Exposure to the air should be continued, nearly as much as in perfect health; care being taken to guard the skin from the effects of much cold.

In cases of difficult and painful dentition, we are told by Mr. Parkinson, that, "So little pain is occasioned by lancing the gum over the distending tooth, "and such immediate relief is often derived from it, "that it frequently happens, that a child, who, the "moment before, appeared to be in great agony, will "bestow a grateful smile, the instant the incision is "made; and if, as sometimes happens the gum grows "again over the tooth, will not only cheerfully submit "to the operation, but even appear to solicit it."

Med. Adm.

It is to be feared, however, that the following assertion of Dr. Buchan may have kept up that repugnance, in some parents, to the operation, with which
medical

medical men so often have to combat. He says, that, "With regard to cutting the gums, we have seldom known it of any great benefit."

To this assertion, I shall oppose the opinion of Dr. Underwood, in his Treatise on the Diseases of Children, conceiving that his authority, in this instance, is not likely to be disputed.—"I am convinced," says he, "from experience, that this little operation is often inexpressibly useful, and appears to have saved many lives, after the most dangerous symptoms had taken place, and every other means of cure had been made use of.—I have seen the like good effects from it, when children have been cutting a number of teeth in succession, and have bred them all with convulsions: nothing having relieved or prevented these terrible symptoms, but lancing the gums, which has removed them every time it has been done, one or more teeth appearing a day or two after each operation." Similar remarks have been made by Mr. John Hunter.

Dr. Underwood also proposes the following mode of performing the operation.—"When it is found necessary to lance the gums, it should always be done *effectually*, with a proper gum lancet, and not with a needle, a thin six-pence, or such like instrument, which will not sufficiently *divide the gum*, nor the strong membrane that covers the teeth."

The various forms of necklaces, amulets, charms, or spells, to assist dentition, are now exploded even among the lower class of people. Few are now to be misled by such delusive and superstitious nonsense.

THE CROUP, OR QUINSY OF THE TRACHEA OR WINDPIPE.

CHILDREN, under twelve years, are generally the unfortunate subjects of this malady, which, without speedy relief, proves mortal. In several parts of England it is called the rising of the lights. It seems to be a species of asthma, attended with very acute, and violent catarrhal symptoms.

This disease, which generally prevails in cold and wet seasons, is most common on the sea-coast, and in low marshy countries. The attack is usually preceded by symptoms resembling those of a common cold; but sometimes it comes on suddenly, commencing with a slight soreness of the throat, a kind of ringing hoarseness in speaking, a shrill barking cough, and a remarkable wheezing which accompanies the breathing. When the child coughs, which is rather frequent, and in redoubled fits, the face is much swelled and flushed, though sometimes it is of a livid colour. As the disease increases, the pulse quickens, the heat augments, and an excessive restlessness takes place.

Children of a gross and lax habit are most liable to it, though sometimes it appears to be hereditary. Its attacks are generally in the night, after children have been much exposed to damp cold easterly winds in the course of the day.

Among the causes of the croup may be enumerated damp houses, wet cloaths, sudden exposure to cold, thin shoes, wet feet, or any thing that obstructs the perspiration. Extreme exertion of the voice, in hallooing, or screaming, appears sometimes to have produced it, as may be perceived in the following case. A child, three years old, whose legs had been scalded, had screamed incessantly, and with great violence for five or six hours; and was seized, the following night, with the croup, of which he died. The following case is almost equally in point: A boy, aged about seven years, had been celebrating, in a procession, the day of quitting school for vacation, and had been engaged with his school-fellows in huzzaing, almost during the whole time, with his utmost exertion. He was attacked the same evening with this malady, and the next day was pronounced to be in a considerable degree of danger; but was happily restored by freely bleeding, blistering, &c.

When a child experiences the symptoms, mentioned above, his feet should be immediately put into warm water. He should also be bled, if of a full habit, and have

have a laxative clyster administered as soon as possible. He must be prevailed on to breathe over the steams of warm water and vinegar; or an emollient decoction. Fomentations, or emollient cataplasms, may be applied round his neck. Should the symptoms not abate, let a blistering plaster be applied round the neck, or between the shoulders. A table-spoonful of the following julep may also be frequently taken by the patient. Mix three ounces of penny-royal water, with one ounce of syrup of althea, and one ounce of balsamic syrup.

Asafætida has been found serviceable in this case, and may be given in form of a clyster, as well as taken by the mouth: Dissolve two drams of asafætida in one ounce of Mindererus's spirit, and three ounces of penny-royal water; and give the patient a table-spoonful of the mixture every hour, or oftener, if his stomach can bear it. If the child cannot take this medicine, two drams of the asafætida may be dissolved in a common clyster, and administered every six or eight hours, till the violence of the disease abates.

To prevent a return of the croup, all the causes above-enumerated must be carefully avoided, as sudden exposure to cold, wet feet, damp easterly winds, extreme exertion of the voice, &c. Children who have had frequent returns of it, or whose constitutions dispose them to be liable to it, should observe a proper regimen: all food that is viscid, or hard of digestion, and crude, raw fruits, should be carefully avoided. A drain should also be continually kept open in some part of the body, by means of a seton or issue.

The extreme danger which always accompanies this disease, and the rapidity with which its symptoms proceed, should induce every person, immediately on its appearance, to apply instantly for medical assistance. But as medical advice cannot always be immediately procured, the progress of the disease may be checked, or the disease wholly removed, by an attention to the following directions. Immediately on its appearance, apply from three to six leeches, according to the age

and strength of the patient, to the upper and fore part of the neck, and promote the bleeding by the application of warm cloths wrung out of warm water. When the leeches fall off, and before the bleeding has ceased, lay the patient between the blankets, and supply him with warm barley water to excite sweating, the front of the neck being covered with a blister. In performing these operations, so much time will probably elapse as to afford an opportunity of obtaining proper medical assistance.

THE WHITLOW.

THE whitlow is a painful inflammatory tumour at the end of the finger. It begins with a violent burning pain, and soon after the skin becomes elevated around the nail; and the end of the finger, under the skin, contains a corrupt fluid appearing almost transparent. In this species of whitlow, no application seems preferable to that of a bread and milk poultice: the tumour being opened, when in a proper state, a continuance of the same application will generally complete the cure in a short time.

There is another species which has its situation much deeper than the former, the inflammation attacking the tendons and ligaments, and the intervening cellular membrane. The pain is much more violent and throbbing than that of the species above-mentioned, and is felt over the whole hand and arm, both of which become swelled. Sometimes fever, delirium, and convulsions are produced by the violence of the pain; and instances are known where death itself has been the consequence of this species of the disease.

In this species, an early application should be made to a surgeon of eminence, since much experience and knowledge are required to oppose the advances of so insidious an enemy.

Whitlows may be occasioned by external injuries, as a puncture, or inconsiderable wound; but they happen most frequently from internal causes, or from causes

causes that cannot be ascertained. The most trifling and superficial punctures or fractures, have sometimes produced the most alarming dangers in this disease.

ACIDITIES.

ACIDITIES accompany most of the diseases of children, and are more frequently the effect than the cause of their diseases. When gripes, purgings, green stools, sour smells, &c. proclaim that the bowels abound with an acid, let the patient have a little small broth, with light bread in it; and sufficient exercise to promote the digestion. The testaceous powders which have been usually administered in this case, should never be given unless mixed with purgative medicines, as rhubarb, manna, and the like; for though, by their absorbent quality, they may correct the acidity, they are attended with this inconvenience, that they sometimes lodge in the bowels, and occasion costiveness, which may prove injurious to the infant.

The best medicine, in cases of acidity, is *magnesia alba*, which, while it purges, corrects the acidity; and not only removes the disease but the cause of it. It may be given in any kind of food, or in the laxative absorbent mixture.

When an infant is tortured with gripes, its body should be opened with an emollient clyster, or the medicine just mentioned; and a little brandy may be rubbed on its belly with a warm hand before the fire. This treatment generally procures ease in the gripes of infants. Should this method, however, not succeed, mix a little brandy, or other spirit, with three times the quantity of warm water, and often give the infant a tea-spoonful of it till he becomes easier.

DIFFICULTY OF SWALLOWING IN INFANTS.

DIFFICULTY of swallowing is a common complaint in infants. If this happens from that fault of the frenulum of the tongue, which renders the child tongue-tied, as the good women express it, this is to be removed by cutting it. If it proceeds from a tumour of the

the tongue, small quantities of the discutient waters are to be put into the child's mouth every two or three hours; and if there are ulcerations upon the tongue, the best of all applications is the oil of eggs. But, before any thing is done for the child, it is necessary to see whether the fault be not in the mother, from her having no milk, or from the nipples being so depressed that the child cannot use them.

THE CROUSE, OR STUFFINGS IN THE BREAST.

SOME children are so afflicted with stuffings of the breast, that they seem asthmatic. In these cases, the solutive syrups of rhubarb and roses are to be given; and afterwards the pectorals, as the syrup of erysimum and maiden-hair, or syrup of liquorice. An emetic may also be given of the syrup or conserve of peach blossoms, and a grain of calomel, or two at the utmost may be given, and often with success. If these fail, small doses may be given of powders prepared of diaphoretic antimony, with twice its weight of detonated nitre; and the common resolvents, such as the orris-root, and spermaceti may be added: and sometimes it is necessary to add a small dose of tantarum vitriolatum, with some of the common absorbent powders.

GALLING, EXCORIATION, OR CHAFING THE FLESH.

GALLINGS, or excoriations, is very common in infants, and very troublesome to them. They most generally happen about the groin, and wrinkles of the neck, behind the ears, and under the arms. They usually arise from the sweats, urine, or acrid stools discharged upon the parts, especially when their nurses are so careless as to keep them dirty, and suffer any thing filthy to remain long on the parts.

In these cases, proceeding from want of cleanliness, the parts should frequently be washed with cold water, the linen should be often changed, and the child, in every respect, should be kept perfectly clean. In this case,

case, common flour, or powder, will often prove a cure; or, when that fails, a little camphor and ceruss mixed among it.

But one of the best applications for this purpose is Fuller's Earth, dissolved in a sufficient quantity of hot water, and after letting it stand till it is cold, rub the galled parts with it gently, once or twice a-day.

Or, the excoriated or galled parts may be sprinkled with absorbent or drying powders, as burnt hartshorn, chalk, tutty, crabs' claws prepared, &c. If the galled parts are washed with spring water, in which a small quantity of vitriol has been dissolved, it will powerfully tend to dry and heal them.

But if internal causes concur, such as sharpness of the blood, and humours in the child, then the common absorbent and sweetening powders are to be given internally, at the same time that the others are applied externally to the parts.

OF COUGHS IN CHILDREN.

THOUGH coughs sometimes attend infants, they are seldom obstinate, usually giving way to the common pectoral syrups, or a little spermaceti, after the bowels have been unloaded by the laxative syrups, or other gentle cathartics. See *Hooping Cough*.

OF VOMITING.

VOMITINGS in infants are rather salutary than hurtful, provided they are moderate; but when they are violent, they are to be remedied by giving gentle clysters, to give a derivation to the mucous matter downward; and at the same time applying externally the common strengthening and stomachic plasters, as oil of mace, and the like, and repeating these applications as often as may be found necessary.

When vomiting proceeds from taking too much food, it should be promoted by a few grains of ipecacuanha, or a weak solution of emetic tartar, as the cure will principally depend on the cleansing of the stomach.

When occasioned by food of an acrid or irritating quality, a milder aliment should be substituted in its stead.

When it proceeds from too great an irritability of the nerves of the stomach, such medicines as may tend to strengthen and brace that organ, should be used.

THE RICKETS.

THIS disease seldom appears before the ninth month, or after the second year of the child's age, but at various periods between; and it shews itself in a flaccidity or laxness of the muscles, and integuments, and a wasting of the body, while some parts become very much enlarged, especially the head and forehead.

CAUSES. The causes are weakness, a scrofulous habit, watery milk in the nurse, a want of free air, due exercise, and too long a continuance at the breast. The offspring of old men, who are subject to the gout, the gravel, or other chronic diseases, or who have suffered by the venereal disease in their youth, are also very liable to the rickets. To these may be added a deficiency of what should form the solid, and particularly the osseous, or bony parts of the body. The small-pox, measles, teething, the whooping-cough, or any disorder that weakens the constitution, or relaxes the habit of children, disposes them to this disease. Bad nursing; suffering the infant to lie or sit too much, or not keeping it perfectly clean, has the most pernicious effects.

SYMPTOMS. At the commencement of this disease, the child's strength is diminished, and its flesh becomes soft and flabby; it loses its cheerfulness, appears remarkably grave, and is unwilling to be moved. The head and belly are too large in proportion to the other parts of the body. Some tumefaction, or swelling of the face, with a paleness, or rather a sulphureous yellow colour in the cheeks, may in general be observed among the first symptoms: As the disease advances, the ribs lose their convexity; the spine of the back becomes incurvated,

incurvated, or bent; the bones of the limbs between the joints waste away, and bend from their inability to support the weight of the body; the breast is likewise often deformed; and the bones of the arms and legs grow crooked; the abdomen becomes hard and enlarged, and the stools are frequent and loose.

In some cases the disease stops here, and the child recovers its health and strength, but the limbs remain crooked.

These symptoms vary according to the violence of the disease: the pulse is generally quick, but feeble; and the appetite is often but little impaired; the teeth come slowly, and with difficulty, and afterwards they often rot and fall out. Ricketty children generally possess a degree of understanding beyond what is usually displayed by others of an equal or a more advanced age.

Dissections of those who have died affected with rickets have shewn various morbid appearances in the abdominal viscera, &c. and such a softness of the bones, that they could easily be cut through with a knife.

REGIMEN. This disease being always attended with evident signs of weakness and relaxation, endeavours should be used to brace and strengthen the solids, and promote digestion and the due preparation of the fluids. For these purposes, wholesome nourishing food should be given, adapted to the age and strength of the patient. Open, dry air, is essential; but in cold weather, it should be kept warm: when the weather is hot, it should be kept cool; as perspiration may weaken it; and too great a degree of cold may have a similar effect. Cheerfulness should be encouraged in the child; and its limbs should be frequently rubbed with a warm hand.

If the milk of the nurse is too poor, she must be changed; or cows' milk must be substituted. In exercising the child, it should be moved in a horizontal posture, an erect one being apt to occasion or increase deformity, which should be further prevented or removed by iron machines properly fitted to the limbs or back-bone.

CURE. Medicines are of little importance in the cure of this disease. In children of a gross habit, gentle vomits and frequent purges of rhubarb may be salutary, though they seldom effect a cure: that can only be expected from such things as brace and strengthen the system; for which purpose the cold bath is strongly recommended, especially in the warm season.

Dr. Temple says, "the rickets may be pretty certainly prevented by very early bathing; for where children are bathed from the time they are two months old, the disease very seldom occurs. The removal of it will consist in strengthening the system by cold bathing, and tonic medicines."

The morning is preferred for using the cold bath, and the child, immediately on its coming out, should be completely rubbed with a dry cloth. There are instances indeed, in which the cold bath has been found to weaken the child; in such cases it may be prudent to discontinue the use of it.

Issues are sometimes beneficial in the rickets; they are peculiarly proper for those children who abound with gross humours. Children can seldom be made to take the bark, or any bitters; or an infusion of the Peruvian bark in wine or ale, would be of service; the metallic tonics may therefore be had recourse to, to which rhubarb may be advantageously added.

Friction with dry flannels is serviceable in this disease.

CHILBLAINS.

CHILBLAINS are itching and painful swellings, which commonly attack children and young persons in cold weather, sometimes terminating in ulceration. Those who use but little exercise are most disposed to this complaint. If proper medicines are not had recourse to, chilblains will often continue till the return of mild weather; and those who have been once attacked by them, are generally much disposed to a return of the complaint in the succeeding winter.

Chilblains are usually occasioned by keeping the feet or hands wet and cold for any considerable time, and afterwards

afterwards heating them on a sudden. When children are cold, instead of warming themselves gradually by exercise, they are too apt to approach the fire. This occasions a sudden rarefaction of the humours, and a fulness of the vessels; which, being often repeated, the vessels become at length over-distended, and compelled to give way.

When this complaint is not very considerable, the remedies afforded by domestic medicine are frequently adequate to the cure. The strengthening the vessels of the part, so that by their action the blood, which seemed to be almost stagnant, may be propelled or urged through them, is the chief principle which should regulate this mode of treatment.

To this end, the parts affected should be often rubbed with the naked hand, or with flannel: As much exercise should be used as the state of the diseased parts will allow; and if there be no sore, camphorated spirits, spirits of turpentine, warm fomentations, plasters, &c. should be applied to the parts affected.

To prevent the arrival or return of this complaint, sudden and considerable changes from cold to heat should be avoided. When the parts swell, and begin to look red, the patient should take a purge, and the parts affected should be often rubbed with mustard and brandy, or something that will have a similar effect. They should also be covered with flannel, and kept warm and dry. Warm ashes, betwixt cloths, are sometimes applied to the swelled parts, in order to reduce them.

When the chilblain becomes ulcerated, the ulcer should be treated as its appearances may indicate: Turner's cerate, the ointment of tutty, the plaster of ceruss, or some other drying ointment may be applied. These sores are troublesome, but not often dangerous: the return of warm weather generally terminates their existence. Sometimes, indeed, when a foul painful ulcer takes place, and is not properly treated, it will greatly extend itself both in depth and width, affecting the tendons, and even the bones themselves.

OF COSTIVENESS IN INFANTS.

COSTIVENESS in infants is a very dangerous complaint, and subjects them to many disorders. The common purgative syrups of roses and peach flowers are to be given in this case, as also emollient clysters; and suppositories, or dry clysters, are to be applied, for which purpose nothing is so proper as a piece of parsley-root, cut into a proper shape, and introduced after rubbing it over with butter. Heister recommends two or three grains of rhubarb in solutive syrup of roses, or a solution of manna, till the child's belly is opened, and afterwards the testaceous powders.

It is necessary, however, to distinguish this costiveness from a natural firmness of the stools when they are voided at moderate distances of time, and without pain; for this is a very salutary habit in children, after the meconium is voided in the first stools: it manifests a strength in the child, and is considered as a good symptom.

OF THE MANAGEMENT OF CHILDREN.

OF GIVING SUCK.

PROVIDENCE kindly sends food into the world with the child, by giving to the mother a breast flowing with milk; but this surely is not bestowed to be neglected and rendered fruitless: we cannot think thus indignant of so great a blessing; for, besides this evident design of Providence, there is another important consideration; which is that mothers, by suckling their children, cherish that tenderness which nature has implanted in them towards their offspring. For experience shews that the office of suckling considerably augments in them the affection from whence that tenderness flows; serves as fuel to keep their fond breasts in one perpetual glow; and, by sweetening their care, enables them likewise to bring the tender infants through their hapless age.

Another

Another argument for suckling, which is not sufficiently attended to, because not sufficiently known, is, that the anxiety and fatigue is perhaps fully compensated by the pleasure. All mothers who have experienced it, whose minds are tempered with natural affection, assure us, that there is an inexpressible pleasure in giving suck, which none but mothers know; for, exclusive of the sensation, it must be highly pleasing to observe the innocence, and the various whims of children; and the early sentiments they discover must doubtless afford a pleasure which no language can describe.

It is indeed a mother's first duty to see that her child is not robbed of that food which nature has provided for it in her breast. Should the mother be tempted, for a sordid bribe, to transfer to another her child's inestimable right, let her consider, that when she sells the food of her child, she perhaps also sells its life.

He who considers these things will soon find how blameable those mothers are, who, without any danger, either from an impurity of the humours, and want of strength, or any other reason, deliver their progeny to mercenary nurses, with a barbarity exceeding that of the brute creation; and do not so much as consider whether they hire a healthy, or an unsound, a virtuous, or a wanton nurse.

It is no wonder, then, according to the testimonies of the most approved authors, that infants are often affected with ulcers, the itch, scald heads, and other cutaneous disorders, by nurses whose diet is irregular; or, if the nurses are afflicted with the venereal disease, that the children contract the same; or are contaminated with pustules and eruptions, and a thousand other infirmities. And since not only defects of the body, but of the mind also, are communicated by the depraved milk, it certainly is not uncommon for children, born of the best parents, sometimes, to be corrupted with the worst morals. Thus have I known infants rendered drunkards, by sucking the milk of a nurse addicted to drinking.

Authors

Authors search not for any other origin of the drunkenness and cruelty of some great men, than nurses tainted with the same vices. *Wardig.* in *Medic. spirit.* lib. 1. c. 25, has a very remarkable passage to this purpose. "Children," says he, "nursed by strange milk, usually degenerate, and assume the nature of their nurses; from the milk and spirit of their nurses, they assume the nature and morals of their nurses: the wildest animals are tamed by human milk, from the mild spirits which they suck in with the milk; as, on the contrary, men fed with beasts' milk become bestial and fierce, as appears from *Romulus* and *Remus*."

I am not insensible how little probability there is that my advice will be followed by persons in high life; for how can it be supposed that a fine lady will lay herself under the necessary restraints towards acting the part of a good nurse; and generously give up some of the vainer pleasures of life, in order to stoop to this part of domestic care? Sometimes indeed there may be important reasons assigned for their doing so improper; but it is greatly to be feared that those reasons are oftener pretended than real; and, as this is a duty not so easily dispensed with as people are apt to imagine, it is incumbent upon parents of the highest rank, to consider how far they are really justifiable in deviating from the laws of nature.

It is not, however, to be considered as a rule never to be departed from, that every mother should suckle her own child: this, in many cases, would be impracticable, and highly injurious, if not destructive, both to the mother and child. Women of delicate constitutions, subject to nervous affections, or hysteric fits, make but indifferent nurses; but it seems perfectly rational that every woman who can, ought to perform so tender and agreeable a duty.

But while I am enforcing to mothers the duty of suckling their children, I must endeavour to omit no material circumstance that will either contribute to the ease of the one, or the advantage of the other. The

first that naturally occurs, is, the time when a child should be put to the breast. This being a matter which has been the subject of some controversy, and often erroneously handled, we have endeavoured to settle it upon a strong basis, *viz.* the experience of the best judges.

The late eminent Dr. Hunter, well known to the public, both by his lectures in Anatomy, and his practice in Midwifry, said, that when he was first appointed one of the midwives of the lying-in hospital in Brownlow-Street, the business of suckling was conducted there in the following manner: the child was put to the breast till the milk came freely, or run out of itself; and, as the breasts usually began to fill in about forty-eight hours after delivery (sooner or later) they were allowed to fill more and more, perhaps as much longer, till the milk began to discharge itself: to promote which, the breasts were frequently embrocated, or fomented with warm oil; to invite the milk, both by the softness of the oil, and the motion given the breasts by rubbing it with the hand. This method was found, by experience, to be wrong; not only from what the child might probably suffer, by being so long deprived of its most natural physic and food, but many grievous effects frequently attended the mother, *viz.* painful swellings and inflammations of the breast, milk fevers, and milk sores.

By these inconveniencies, the physicians of that hospital were induced to alter their method, which, for some time past has been as follows. The child is usually put to the breast within twenty-four hours after delivery; and though, at first, it sucks but little, and that only a thin serum, (which is however of singular service to the infant, by discharging the *meconium* that fills the large intestines) the advantage to the mother is, that the milk comes gradually and kindly; and, before the usual time of the breasts hardening in the *other* method, in *this* the difficulty is overcome; the milk flows freely, the breasts are soft and easy, the heat of the body continues

tinues temperate, and inflammations of the breasts and milk fevers much seldomer happen than by the former method.

This method of putting children to the breast much sooner than usual, corresponds with the opinion of Dr. Cadogan, who, in a pamphlet on the management of children, proposes, that a child should be put to the breast in seven or eight hours after it is born. "Thus" says he, "it would not only provide for itself the best
"of nourishment, but, by opening a free passage for
"it, take off the mother's load as it increased, before
"it could oppress or hurt her; and thereby effectually
"prevent the fever; which is caused only by the
"painful distention of the lacteal vessels of the breasts,
"when the milk is injudiciously suffered to accumu-
"late."

Parents should be particularly attentive to this advice, unless some extraordinary circumstances intervene; in which case their own judgment must direct them to seek an opinion suitable to the exigence. Let the utmost care, however, be taken to prevent the mother's catching cold, or sitting up in bed too long for her strength, in the first attempt to suckle her child.

Sometimes a child, when first put to the breast, is at a loss; the mother too, especially if a young one, is often awkward; and if the nurse be unhandy or careless, the consequences may be fatal; and indeed frequently are so: the reason is evident. The perspiration which usually follows delivery is necessary; and, where nature is defective, art is employed to keep it up. If then these sweats are salutary, whatever checks or obstructs them must be dangerous: and nothing more certainly effects this than being injudiciously uncovered.

The time of a child's sucking is a point much controverted, but not ascertained. It is fashionable to let children suck only three or four months; though it is generally agreed, by the learned, that a child should not suck less than six months, nor more than twelve;
but

but that the medium (nine months) is to be preferred. There may, however, be reasons for varying these stated times, and there may be circumstances which impede the mother's suckling her child at all; the want of health is a principal one; but it should be a real want of health, not an imaginary one.

As an inducement to mothers to suckle their children, we can assure them, that it is the opinion of physicians, that many women would improve their health by it; and very few, if any, would injure a good constitution by such a practice, unless through their own ignorance or imprudence.

The three most obvious things which impair a mother's health in nursing, are fatigue, hunger, and fretting. Hunger should be carefully avoided while the mother gives suck; and, if she has been accustomed to drink a glass or two of wine, or ale, at meals, she should not debar herself from it now; as her waste of strength and spirits certainly demands her usual way of life; though it does not seem necessary for her to go far beyond it. Intemperance and violent passions are highly pernicious.

By attentively observing these few rules, mothers in general may suckle their children, without pain or injury. They may sometimes improve their health, often lessen their cares, and mend their tempers and dispositions. They will at least enjoy a pleasing consciousness that they have obeyed the laws of nature, by having done all that was incumbent on them.

OF A WET NURSE.

WHERE there are powerful reasons to be adduced why a child should not suck its mother, a breast is certainly the best substitute; but the greatest care is demanded in the choice of a nurse. She should be young, healthy, of a mild disposition, temperate, and sprightly. The newer her milk the better; but it is best not to be above three months old, and should never exceed six when the child is first put to her breast. The younger the breast-milk is, the thinner and lighter

it will be ; fitted by nature for the tender stomachs of new-born infants : as it grows older, it becomes thicker, richer, and harder of digestion ; by which gradual change, it is suited to the relative rising powers of digestion in the child.

Hence it seems clear that breast-milk does not at this stated time become poorer but richer ; rich perhaps to a degree of rancidity ; which, like gross food to others, is sometimes stronger than children can bear : and on this principle it is generally recommended, where a breast is to be sought, that either the milk may be young, or the child soon weaned.

We cannot pass over, unnoticed, the destructive practice of drinking spirituous liquors. A habit of dram-drinking is detestable in any woman, but more particularly so in a woman who gives suck : it is fraught with double mischief, destruction to herself, and destruction to the child. It must be confessed, indeed, that the illiterate and vulgar are the most addicted to immoderate drinking ; but melancholy experience shews, that women in an exalted situation in life, women of the best understanding, and the best education, have gradually and inadvertently becomes slaves to it.

There are doubtless many women who never tasted spirituous liquors, till they began to give suck. A child continues lugging at the breast till the mother is ready to sink, and a friend recommends a dram : the innocent woman perhaps starts at the proposition ; but, it being strenuously urged that it will be serviceable both to her and the child, she yields to the solicitation and drinks it, though with reluctance and dislike.

The dram thus taken acts immediately on the nerves of the stomach, and instantly communicates itself to those of the brain, which are exquisitely fine : the sensation is pleasing, a general glow is felt, and the temporary relief it affords, induces her to imagine that drams are not so pernicious as people pretend. Soon, however, the languor returns, and she has recourse to her dram again ; though perhaps with this difference, instead of being persuaded into it, she seeks it herself ;

and thus, by a return of wants, she finds a return of desire ; she flies so often to her supposed remedy, that at length she is innocently and almost insensibly led into a habit which infatuates her.

Hence the tone of the stomach is weakened, and, with it, the power of digestion ; obstructions of the liver and other parts ensue ; the solids are broke, and the fluids forsake their proper channels. Hence originate jaundice, dropries, palsies, and various other distempers, fatal in their consequences, and doubly acute to those who reflect that they have brought them on themselves.

It must be acknowledged, however, that all drams are not alike pernicious ; and that they do not act alike on all constitutions ; but it is certain that they all contain fiery particles, a portion of caustic inflammable matter, in general very injurious to our whole frame ; very unfit to circulate in our blood and juices ; and, above all, extremely prejudicial to those infants who imbibe the infection by sucking at a breast thus unhappily tainted.

It is common for those who nurse for hire to administer a stupifying dose to children, in order to lull them asleep. An indolent nurse who neglects giving a child sufficient exercise in the open air to make it sleep, and wishes not to be disturbed by it in the night, too frequently has recourse to some somniferous drug, though it may operate as poison to the infant.

OF A SUBSTITUTE FOR BREAST-MILK.

IF a child cannot obtain the breast, the best substitute for it is to be sought. Some physicians of the first eminence are of opinion that cows' milk, diluted with water till it becomes as thin as breast-milk, given warm several times in the day, will nearly answer the purpose. Besides this, it should sometimes be fed with other milk diet, as bread and water boiled lightly together, and milk added to it.

It is customary to feed a sucking child with nothing but water-pap, that is, bread and water boiled together,

ther, without the addition of milk ; from a notion that it should not have two sorts of milk ; but this practice is certainly very erroneous. There are indeed some who improve upon this error, and give their children (at least for the first month) water pap only, although they have no breast.

It seems evident that many infants have lost their lives by mistakes committed in this point ; and often to the practice of giving them bread and water only, and omitting the most salutary part, the milk ; which is the food of nature : with that alone, to an infant, we may do almost every thing ; without it, nothing.

A common error among nurses is the immoderate use of spice and sugar, which physicians, who have considered these matters, positively condemn. If a child is well, the putting either of these into his victuals, answers no kind of purpose. Spice and sugar are certainly fine natural productions, and of great benefit to mankind ; but the food of infants should be as simple as possible ; and if it is made otherwise by the early use of these, the effects will always be very troublesome, and frequently mischievous. What is more common than to give lumps of sugar to young children to eat ; and what more erroneous ? Every day's experience demonstrates to us how improper the practice is : it vitiates their taste, creates in them an unconquerable fondness for it, and manifestly clogs their stomachs.

OF GIVING TEA TO CHILDREN.

IT is usual for parents to give tea to their children ; without considering that tea, to a young child, if we omit the milk, has not a single ingredient to recommend it. The sugar is known to be pernicious ; the water (as tea is generally drank too hot) serves to scald the mouth and throat of the infant ; or, at best, to relax the stomach, and weaken the tone of it ; and the plant or shrub itself has qualities, which, to say the best of them, seldom contribute to promote its health.

Tea has many advocates, or it would not have become so universal a beverage as it is at this day. Many have

have displayed great ingenuity in describing its virtues and utility to mankind; but all this is insufficient to stand against that infallible guide, experience. To affirm that tea has no good qualities, would be absurd, and offering an insult to the judgment and experience of many celebrated men. Bohea tea is esteemed balsamic, and green is allowed to be an astringent stomachic. But these, or any other particular qualities, do not justify its general use; for, while the same experience proves, that, for one who receives benefit by drinking it, ten receive injury, it certainly, on the whole, deserves condemnation.

It is, indeed, generally allowed, that the immoderate and indiscriminate use of tea is hurtful. It is admitted that some are manifestly refreshed, comforted, and enlivened by it; others feel not the least sensible effect from the longest use of it, and drink it purely through custom: others again, and those by much the most numerous, so visibly impair their health by this pernicious practice, that they shorten their lives, or at least render them comfortless, if not miserable.

Children whose nerves are weak, should never be permitted to drink tea. Tea, in general, should never be made strong, nor drank in large quantities; neither should it be very hot, or very sweet. It should not be drank in a morning by those who cannot eat; nor can it, in general, be drank in the afternoon with safety, but by those who have had a hearty dinner.

It is universally agreed that we eat too much flesh in this country: let this serve as a general caution to parents; let them turn it to the advantage of the rising generation, by not being hasty in giving flesh-meat to their children, nor even permitting them to be intemperate in the use of it.

To enforce this precept, let it be remembered that the physicians say, the first digestion should be in the mouth, the second in the stomach: which implies that children have no occasion for meat till they have teeth to chew it; nay, not till their mouths are almost full of teeth.

WINE, &c. HOW PROPER FOR CHILDREN.

AS the duty of a parent is the promotion of a child's happiness, and as health is necessary to happiness, a watchfulness over him in this respect is indispensable; since by delay, neglect, or ill-placed confidence, disease may be so fixed in him as to render him miserable all the rest of his days. Grown persons, even among the temperate, drink more wine, and other strong liquors, than is either needful or beneficial; but to give wine to infants is certainly a gross error; and even to those who have passed the stage of infancy, the practice is very reprehensible.

Though wine is a general term for the juice produced from grapes, it differs essentially in colour, quality, and flavour, according to the country which produces it: this is manifest, by the different effects of it upon the human body. One sort constringes too much, another is loaded with tartar, and a third abounds with inflammable spirit.

But not to enter into a physical analysis of wine, let it be admitted that it assists the digestion, warms the blood, and gives a certain degree of sprightliness, which, in other words, may be denominated a flow of spirits. In the treatment of children, we injure them if we give them gross food, such as requires wine to digest it; and, if wine be given also, we add fuel to fire, flame to flame: nor do the blood and spirits require this foreign assistance while young: the one is by nature sufficiently warmed, and the others are best supported by temperance and a cheerful disposition.

We know, from experience, that malt liquor can be raised to any degree of strength; that it is capable of inflaming the blood, and intoxicating the brain; and that our frame is consequently weakened and destroyed by it when intemperately used. But, besides these effects, it has others often very injurious. One, from a natural weakness of the bowels, is thrown into habitual purgings; another it oppresses with wind; and, in a third, from its glutinous quality, it obstructs some
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of the viscera, and has a peculiar tendency to clog the vessels of the lungs, and thereby hinder respiration, produce coughs, and those fatal circumstances frequently attending them. Hence it is easily seen how necessary it is for parents to be attentive to the conduct of their children in this respect.

OF THE CLOATHING OF CHILDREN.

INJURY from the exposure to the inclemencies of the weather, is in a great measure prevented by the due management of the cloathing; which should always be adapted, as nearly as possible, to the change of seasons in this variable climate. Care should also be taken that the cloathing be regularly disposed, not much thinner in one part than another; for it is certainly very absurd to wrap the body in thick woollen, and to cover the legs with stockings of a thin texture.

The proper cloathing of children is a consideration of great importance; and indeed the opinions of different men in the learned world, and different women in the conversable world, are so very many as to render it next to impossible to fix a standard for dress, with regard to health only, that would in any manner square with the various notions subsisting. Arguing on principles of philosophy, from reasons founded on the knowledge of anatomy and the animal œconomy, will not be relished by the crowd; nor will examples, produced from practice, prevail on the learned to think the general practice rational.

Many are of opinion, that every kind of bandage is to be rejected; even garters, wristbands, and collars; that they impede the circulation of the blood, or at least render it unequal and irregular, and prevent the growth of the solids; nay more, that they are a frequent, though latent cause, of apoplexies, and other dreadful diseases.

They farther assert, that whatever compresses the frame (particularly the tender one of an infant) is dangerous, as rollers, stiff stays, or other things to answer the same purpose: that as the trunk of the body
contains

contains what physicians call the viscera, in which are the chief functions of life, whatever external methods are used to cramp or bind them up, is prejudicial to health. That the lungs particularly are to have free room to play; and that, if the chest be externally pressed, whether by rollers, stays, waistcoats, or any thing else, it lays the foundation of many future evils.

To these general opinions, permit me to add what an eminent writer has said upon this subject. Mr. Locke, in his treatise of education, says, "Narrow
"breasts, short and stinking breath, ill lungs, and
"crookedness, are the natural and almost constant
"effects of *hard bodice* and cloaths that pinch. That
"way of making slender waists and fine shapes, serves
"but the more effectually to spoil them. Nor can there
"indeed but be disproportion in the parts, when the
"nourishment prepared in the several offices of the
"body, cannot be distributed as nature designs. And
"therefore what wonder is it, if being laid where it
"can be on some part not so braced, it often makes a
"shoulder or hip higher or bigger than its just proportion."

Deformity of body may indeed be the consequence of weakness or disease, but it is generally the effect of improper cloathing. Look among the inhabitants of uncivilised nations, who never manacle their children, and how seldom will you find a limb distorted or disproportioned; even among animals, a deviation from regular symmetry is a very uncommon case.

The solicitude of parents about shape is chiefly confined to the females: boys, when breeched, like eels twist themselves into a thousand forms, and prove straight at last; while the girls, with less freedom and more anxiety, seldom come off so well. Still mothers contend for the necessity of stays; and maintain, from experience, that the shape, instead of being hurt with them, is spoiled without them. The question therefore is, whether nature requires these props or not; the learned say they do not; general practice says they do:
the

the learned recommend that nature be left to fashion the parts herself, but general practice contradicts this.

The learned, however, must admit, that stays may often be worn without the least injury; that, as girls are naturally more tender and delicate than boys, many of them would have been deformed, either through bad nursing, or some inbred infirmity, though they never had worn a stay in their lives; and parents will be convinced, that while nature is labouring to complete their childrens' growth, both health and beauty depend greatly on their not being braced injudiciously.

Cleanliness tends greatly to preserve the health of children: It promotes the perspiration, and thus relieves the body of superfluous humours, which, if retained, might generate diseases. With every part of the cloathing which applies immediately to the skin, particularly the wearing of flannel next to the skin, the utmost cleanliness is necessary, not only for the sake of comfort, but of health; since there cannot be a doubt that fever itself may be generated, by the filth suffered thus to accumulate.

Before we dismiss this subject, we think it necessary to mention the example of the Chinese women, who, of all people on the earth, have the smallest feet, not naturally, but rendered so by cramping them, from a notion that it is beautiful. "By this practice," says Mr. Locke, "it is believed they impede their growth, and shorten their lives. To these opinions may be added the general consent of mankind, that in *those countries where stays are not worn*, the people are hardly ever known to be crooked."

Deformity is not only disagreeable to the observer, but by the misshapen figure of the body, the animal or vital functions must be impeded, and consequently the health impaired. Very few persons enjoy perfect health or strength who are misshapen in any considerable degree.

MEDICAL ADVICE TO FEMALES.

WOMEN, from the delicacy of their frame, and their domestic sedentary employments, are subject to many diseases for want of a proper portion of air and exercise. They have also complaints peculiar to their sex, which require the utmost attention and care to relieve or remove. Among these is

THE MENSTRUAL OR PERIODICAL DISCHARGE.

THE menses are the periodical discharges of blood from the uterus from about the age of fourteen or fifteen to fifty. They are so called from *Mensis*, month. In some women this discharge continues to flow two days, in others three or four, or perhaps a week. About their first eruption, the quantity is small; but in women arrived to maturity it is more. The more lax the constitution, the larger is the discharge, other circumstances favouring. Lean women, and those who abound with blood, evacuate more than such as are fat, and of a colder temperament; and those who indulge in luxury and indolence, lose a larger quantity than those who use much exercise, and live on a poor spare diet. It is generally observed, that the sooner they appear, the sooner they disappear.

It is not every variation in the period or quantity of this discharge, that is to be considered as a disease, since every healthy female is not exactly alike in these respects, the discharge recurring, in some cases, at longer, and in others, at shorter periods; in some cases in larger, and in others in smaller quantities; without the appearance of any circumstances that points out the variation to be unnatural, or unequal to the necessities of the constitution. Slight deviations, in these respects, may also occur in the same person, without being accompanied by any mark of disease.

The phenomena or surprising appearance of the menses seems to depend on this. The arteries of the uterus

uterus are larger than the arteries in men, and their areas or contents are to the thickness of their membranes beyond the usual proportion; on the contrary, the veins in the uterus are less than in men, and their coats stronger in this part than in many others. This mechanism, and the increase of blood, generated in a month, will explain the phenomena.

The heat of the body is in proportion to the crassamentum of the blood; this crassamentum increasing adds to the vital heat, which distending the vessels of the whole body, these arteries, which are the weakest, will be distended in the greatest proportion; and thus pores, that before only admitted of serum to fill the cellular membrane, may now admit of red blood. Thus the increased blood mechanically discharges itself, which being done, the heat of the body is diminished, and the arterial coat contracts sufficiently to restrain the blood from passing any longer that way.

It is asserted by the Doctors Friend and Haller, that this discharge is from a plethora, or a too full habit of body, and they support their opinion with proper anatomical remarks; Boerhaave concurs with them in opinion, as well as many other physicians of the greatest eminence; but it is asked by some, why is not this discharge brought on by every ardent or inflammatory fever? To this it is answered, that it very frequently is, and when it is not, it is owing to a spasm or other usual cause of their obstruction. This theory is supported by anatomical observations, the symptoms that precede, and those that follow this evacuation. Before the discharge the breasts swell, the head aches, the eyes have their veins full of blood, the back aches, and there are other symptoms of a feverish state; the due quantity being excreted, nature is reduced a little below a state of health, as appears by the languor and depression of spirits. The symptoms of defective menses are the same as are consequent in an inert and sluggish state of the fluids.

Dr. Hunter observes, that the immediate cause is universally allowed to be an accumulation of blood,

which bursting the sides of the vessels, is discharged; that, after the discharge, the vessels collapse and unite again, till the next accumulation, and so on every month. And the final cause seems plainly to be this, that the female constitution is fitted for making more chyle and blood than is required for its own nourishment, in order that there may be a provision for the preservation of health; therefore, till the time of pregnancy, a monthly discharge of this superfluity becomes necessary. Again, that the redundancy of blood was, by nature, designed for the fœtus, or embryo, appears still more probable from their first appearance when women are fit to bear children, and their ceasing when they are past it.

It is generally agreed, that the necessity women are under for some extraordinary supply to support them during the time of gestation, was the reason why this redundance at other times was given them, which continues whilst this necessity subsists, and ceases when, according to the constitution of the female frame, it is no longer required: but this is all they agree in. Some, not content with this occasion alone, say, the menstruous blood offends in quality more than quantity; which they argue from the pain it gives many women in the discharge.

Others ascribe this effect to an imaginary dominion of the moon over the bodies of women: This was formerly the prevailing opinion; though the smallest reflection would have shewn the weakness of it; for, had this purgation been owing to the influence of the moon, all women, of the same age and temperament, would have found it at the same periods and revolutions of the moon, that is, at the same time; which all experience shews to be false.

Two other opinions appear extremely probable, and are argued with much strength and reason; in both which the quality of the blood is allowed to be innocent, but they still differ about the reason of its issue. The former is that of Dr. Bohn and Dr. Friend, who maintain

maintain this flux, or flow, to be the result of a plethora, or plenitude; and to be evacuated only for relief against the quantity.

Dr. Friend, who has maintained the cause of a plethora with the greatest strength and clearness, supposes that this plethora arises from a coacervation or accumulation in the blood-vessels of a superfluity of aliment, which, he thinks, remains over and above what is expended by the ordinary ways; and that women have this plethora, and not men, because their bodies are more humid, and their vessels, especially the extremities of them, more tender, and their manner of living generally more inactive than that of men; and that these things concurring clearly shew, that women do not perspire sufficiently to carry off the superfluous alimentary parts, till they are accumulated in such quantity as to distend the vessels, and force their way through the capillary arteries of the uterus.

This is the substance of Dr. Friend's theory, which we cannot further explain consistently with the nature of our plan, from whence he very mechanically, and very philosophically accounts for the symptoms.

Females, as mentioned above, generally begin to menstruate about the age of fifteen, and cease about fifty; though instances have occurred of their commencing sooner and continuing longer. These are, indeed, two critical periods in the lives of females, which require their particular attention.

In order to escape the chlorosis, or green sickness, and other similar diseases, they should avoid indolence and inactivity, and accustom themselves to exercise, in the open air, as much as possible. Unwholesome food, dulness of disposition, and strait or tight cloaths are very injurious to females at this important season. A narrow waist, even when it was fashionable, was too dearly purchased by loss of health, and deformity of person.

When a female has arrived at that period of life when the menstrual discharge usually begins to flow, and it has not made its appearance, but, on the contrary,

trary, she perceives that her health and spirits are on the decline, let her not be shut up in a house, and pestered with nauseous drugs, but suffer her to repair to a situation where she may enjoy the benefit of free air and cheerful company; for it is generally allowed that proper food, sufficient exercise, and innocent amusement, greatly assist nature in bringing about her regular visits.

Females are seldom surpris'd unawares, in the beginning, with this visitor: its approaches are usually preceded by unequivocal symptoms; as a sense of heat, weight, pain in the loins; distension and hardness of the breasts; lassitude, paleness, head-ach, loss of appetite, and sometimes a slight degree of fever. When these symptoms are perceived about the age that the menstrual flux is usually expected, they should carefully avoid every thing which may tend to obstruct that salutary and necessary evacuation; on the contrary, every method should be adopted that would promote it: such as sitting over the steams of warm water, drinking warm diluting liquors, &c.

When the menses have begun to flow, great care should be taken to avoid every thing that may tend to obstruct them; such as fish, and all kinds of food that are hard of digestion. Every thing that is cold, or apt to turn sour on the stomach should also be guarded against. Cold is extremely injurious at this particular period, as also anger, fear, grief, and other affections of the mind. From whatever cause this flux is obstructed, except in the state of pregnancy, proper means should be used to restore it; and if exercise in a dry, open, and rather cool air, wholesome diet, cheerful company, and amusements fail, recourse must be had to medicine.

The interruption of the menstrual discharge is of two kinds; the first when there has been no appearance of them after the usual age at which they generally flow, independent of conception, is called retention; and the second, when, after they have flowed regularly for some time, they cease to return at the usual periods, is called suppression.

When

When obstructions are the consequence of a weak relaxed state of the solids, such medicines should be administered, as tend to promote digestion, brace the solids, and assist the body in preparing good blood; such as the Peruvian bark, with other bitter and astringent medicines. Filings of iron may be infused in wine or ale, in the proportion of two or three ounces to a quart, and, after letting it stand for about two or three weeks, it may be filtered, and half a wine-glass of it taken twice a-day: or half a dram of prepared steel, mixed with a little honey or treacle, may be taken three or four times a-day. The bark and other bitters may be taken either in substance or infusion, at the option of the patient.

For obstructions proceeding from a viscid state of the blood, especially if the patient be of a gross or full habit, evacuations are necessary, and such medicines as may tend to attenuate or dilute the humours. In this case bleeding is proper, and the patient should frequently bathe her feet in warm water, take now and then a cooling purge, and live sparingly upon a thin diet. Her drink should be whey, water, or small beer, and she should take plenty of exercise. A tea-spoonful of the tincture of black hellebore, in a cup of warm water, may also be taken twice a-day. The sal diureticus may be given three times a-day. A sluggish viscid serum may also be corrected by repeated doses of tinctura sacra, or of the pil. ruff. administered in such a manner as to prevent costiveness.

In cases both of the retention and suppression of the menses; that is, when they do not begin to flow at the period of life in which they may be expected, and when they cease, from other causes besides conception, to return at their usual and proper periods, the application of electricity is a very efficacious and certain remedy. Mr. Birch, in his *Considerations on the efficacy of electricity for removing Female Obstructions*, 1779, has enumerated seven cases, in which the electrical power has been very successfully employed. But either strong shocks, or a stronger application of electricity

tricity than the patient can conveniently bear, should be carefully avoided; for by those means sometimes more than a sufficient discharge is occasioned, which is not easily cured.

Mr. Birch advises one of the directors to be introduced through the pocket, or down the back of the stays, so as to reach to the lower part of the spine, nearly upon the os sacrum, while the other is placed below the peak of the stays. When the directors are thus situated, the shock is expected to pass immediately through that part of the pelvis which is included between the directors. One of them is then removed from under the peak of the stays, and placed under one foot, and afterwards under the other. Some lateral or side strokes are afterwards transmitted across the pelvis, after having introduced a director through each pocket-hole.

When the obstruction of the mensis is the effect of other maladies, instead of giving medicines to force that discharge, which might be dangerous, endeavours should be used to restore the patient's health and strength. When this is effected, the other will return of course.

The discharge of the menses is interrupted naturally during pregnancy; but this is not always the case, because some have them three months, some six months, and some during the whole time of gestation, though in less quantity than at other times. The menses are mostly interrupted during the time of giving suck; though many women have a return about the third or fourth month after delivery, and almost all have them again in the ninth or tenth month. In cases of obstruction, the menstrual blood has discharged itself by other outlets.

It usually happens that this periodical discharge ceases between the age of forty and fifty; and the season in which this takes place, is critical to the sex. Those, however, who survive this period, without contracting any chronical disease, become more healthy and vigorous than they were before. About this time,

some are afflicted with the well-known symptoms of plethora, heat, flushings, restless nights, troublesome dreams, and unequal spirits: Others are attacked with inflammations of the bowels, or other internal parts; spasmodic affections of various parts, stiffness in the limbs, swelled ancles, with pain and inflammation, the piles, and other effects of plenitude.

Those of plethoric habits, accustomed to copious evacuations, will find great relief by bleeding frequently in moderate quantities, keeping the bowels lax, moderating their diet, and using sufficient exercise that is not too heating. If an immoderate flux of the menses happens at this period, it should be restrained by gentle laxatives, cooling medicines, rest, anodynes, and a most sparing and not too liquid diet, rather than by very copious bleedings and astringents of any kind.

Dr. Fothergill observes, that various purgations of aloes, the tinctura sacra, elixir proprietatis, and other compositions of this kind, are recommended as proper purgatives to be used on the cessation of the menses: But many inconveniences have arisen from these heating medicines, as the piles, stranguary, immoderate discharges of the menses, racking pains in the loins, and other similar complaints. Rhubarb, senna, magnesia, small doses of jalap, and various combinations of these, may be substituted in the room of the others, and will supply sufficient variety to the prescriber and the patient.

When the menses are about to go off, they appear for the most part irregularly both in time and quantity; once in a fortnight, three, five, or six weeks; sometimes very sparingly, at other times in immoderate quantities. Great losses of this kind are often prevented by taking away four or five ounces of blood, a few days after the first menstrual suppression. If a patient has in early life been subject to cutaneous eruptions, sore eyes, glandular swellings, or other obvious marks of morbid humours subsisting in the constitution, all which may have disappeared about the time the menses became regular, an issue is an adviseable drain, and

may prevent many inconveniencies. If at this time ulcerous sores break out about the ancles, or in other parts of the body, they ought to be continued open, or artificial drains substituted in their stead; for those who will have them dried up, are soon after carried off by acute diseases, or fall into those of a chronic kind.

When the head-ach and sickness in the stomach affect the patients, Dr. Alston extols the use of borax, given in a fluid state. Opiates are often very useful in removing those spasms which are excited by a painful approach of the menses, and which frequently retard or obstruct their course.

This case of painful menstruation deserves particular attention, because it impairs the health of patients by its present effects, and seems to render them less prolific in future. Dr. Fothergill has afforded relief to several by the following process: let the patient have by her a few pills, consisting of extr. theb. gr. i. each, made soft with a little of any kind of conserve. She is to take one of these pills the moment she finds the pain attending this discharge coming on. A pill may be taken every hour till the pain goes off; and more than two of these pills will seldom be required; but it must be taken in such a quantity as to mitigate the pain. Let the patient keep either in or upon the bed, at least in a recumbent posture, drinking moderately of any diluting liquor, as the herb teas, weak whey, or thin broth. When the time is past, a course of chalybeate bitters, in small doses, may be continued, till within a few days of the return; and the belly should be kept open with some proper laxative. This excruciating pain seems to be spasmodic, and to proceed from the extreme irritability of the uterine system.

But the menstrual flux may be too great as well as too small. Females who live a life of inactivity, and who have been weakened by frequent miscarriages, difficult labours, and immoderate discharges from other causes, are particularly liable to an *immoderate flow of the menses*; as well as those who have suffered the suppression of some long-continued evacuation, or who have

submitted

submitted to frequent bleedings. Distress and anxiety of mind, indulgence in wine, and spirituous liquors, also dispose to this complaint. To which may be added, as particularly likely to induce this species of hæmorrhage, sudden frights, violent fits of passion, the improper use of strong cathartic and forcing medicines, &c.

When this discharge is considerably increased beyond its accustomed quantity; when its returns are at much shorter periods than usual; especially if preceded or accompanied by cold chills, succeeded by heat and thirst, pain in the head and giddiness, shortness of breath, and pain in the loins, it may be concluded that it exceeds the natural and salutary quantity. If the disease is not now checked, other symptoms, the consequence of excessive debility, soon come on; the face becomes pale, the feet are cold, and become affected with an œdematous or dropical swelling; a fluttering and extreme sinking is felt in the inside; the stomach, instead of requiring food, is generally affected with nausea; the pulse is small and frequent; the body is covered with a cold sweat, and agitation or fainting is occasioned by the slightest alarm.

The disease having proceeded thus far, a trifling circumstance may produce an extraordinary change; a sudden and copious discharge may be soon succeeded by fainting, and even death; or the continuance of a discharge not sufficient to occasion immediate dissolution, may be productive of dropsy, and other complaints founded on extreme debility.

The treatment of this disease must be varied according to its cause. When it proceeds from any error in the patient's regimen, a different plan must be adopted, and such medicines must be taken as have a tendency to restrain the flux, and counteract the morbid affections of the system from whence it proceeds. The patient should be kept calm and easy both in body and mind. If the flow be very violent, she should lie in bed with her head low, and take only cool and slender diet, as veal or chicken broths with bread; she should also drink decoctions of nettle-roots, or the greater comfrey. If these

fail, stronger astringents may be used, as japan earth, elixir of vitriol, the Peruvian bark, allum, &c. Two drams of allum, and one of japan earth, may be pounded together, and divided into nine doses, three doses of which may be taken in a day. Or the patient may take two table-spoonfuls of the tincture of roses three or four times a-day, adding ten drops of laudanum to each dose. Or, she may take half a dram of the Peruvian bark, in powder, with ten drops of the elixir of vitriol, in a glass of red-port, four times a-day.

There is a discharge of a fluid from the uterus and vagina, which is usually called the *fluor albus*, or vulgarly the whites, from its being generally of a whitish colour. This is a very common disease, and proves extremely hurtful to delicate women. The discharge, however, is not always of that colour, but is sometimes of a green, yellow, or brownish hue. In the beginning of the disease, it is generally white and pellucid, and acquires the various discolorations in the progress of the disease, and also different degrees of acrimony. Sometimes it is sharp and corrosive, and sometimes foul and fetid, &c. This occasions a smarting, and pain in making water; and the patients generally complain of a heavy pain and weakness in the back and loins, when the discharge is great, with lowness of spirits, loss of appetite, swelling of the feet, and other symptoms of general debility. When the complaint continues long, they have also a slow fever, attended with difficulty of breathing, palpitation of the heart, and faintings. The urine is sometimes turbid, and the eye-lids swell. It is attended with a pale complexion, and generally proceeds from a relaxed state of the body, arising from indolence, and the excessive use of tea, coffee, or other weak and watery diet.

Women who have this complaint conceive with difficulty, and are very liable to miscarry. The more recent the disease, and the whiter and less acrid the discharge, the more easily is it cured; when it has continued long, and the discharge becomes discoloured and acrimonious,

acrimonious, it is more difficult, and in this state it frequently proves very obstinate, troublesome, and hard to cure.

In order to remove this disease, as much exercise should be used as the patient can bear without fatigue. Her food should be solid, nourishing, and easy of digestion; her drink should be red-port or claret, mixed with Pyrmont, Bristol, or lime-water. Strong broths have a good effect, and milk diet alone will sometimes perform a cure. But the patient should avoid tea and coffee, and not indulge herself too long in bed.

The system must be strengthened by tonics, the bark, bitters, vitriolic acid, chalybeates, and the cold bath: astringents may be given internally. Stimulating the intestines and rectum may do good, by giving rhubarb frequently. Dr. Darwin recommends six or ten grains every night, with one grain of opium, for some months. The acrimony of the discharge may be corrected, and the urgent and most distressing symptoms relieved, by a diligent attention to cleanliness; by frequently washing the parts with warm demulcent injections of milk and water, or, an infusion of linseed in water; by lime-water, and by isinglass and jellies taken as food. The tonic medicines will remove the lowness and languor dependant on debility; and the fainting may be obviated, or made to recur less frequently, by cordial medicines and a nourishing generous diet. The pain in the back and loins will be relieved by enveloping them in a plaister, either of Burgundy pitch, or de minio.

Dr. Leake says, he has attended more patients labouring under the *fluor albus* in the autumn, than at any other season of the year, especially when the weather was uncommonly moist and cold: most of them were cured by change of diet, an increased perspiration, and the proper use of Peruvian bark with aromatics. He observed, that several about this time who escaped the disorder, were visited with bad colds, a defluxion of rheum on the throat, or a diarrhoea, which were removed by a similar treatment.

As

As women are sometimes connected with those who do not conscientiously regard their safety, it is a circumstance of the utmost consequence to distinguish a fresh venereal infection from the fluor albus; for, if the first is mistaken for the last, and is neglected, or treated accordingly, the disorder may unfortunately end in a confirmed *lues*. The following signs will best inform the patient whether there is occasion for her doubts or not. A fresh infection called *gonorrhœa*, is malignant and inflammatory; the fluor albus most commonly arises from relaxation and bodily weakness: and therefore the remedies proper in the first disorder would render the last more violent, by locking up and confining the infectious matter.

In the *gonorrhœa* the discharge chiefly proceeds from the parts contiguous to the urinary passage, and continues whilst the menses flow; but in the fluor albus it is supplied from the cavity of the womb and its passage, and then the menses are seldom regular.

In the *gonorrhœa* an itching, inflammation, and heat of urine, are the forerunners of the discharge; the orifice of the urinary passage is prominent and painful, and the patient is affected with a frequent irritation to make water. In the fluor albus, pains of the loins, and loss of strength, attend the discharge; and if any inflammation or heat of urine follow, they happen in a less degree, and only after a long continuance of the discharge, which becoming sharp and acrimonious, excoriates the surrounding parts.

In the *gonorrhœa*, the discharge suddenly appears, without any evident cause; but in the fluor albus it comes on more slowly, and is often produced by irregularities of the menses, frequent abortion, sprains, or long-continued illness.

In the *gonorrhœa*, the discharge is greenish or yellow, less in quantity, and not attended with the same symptoms of weakness. In the fluor albus, it is often of the same colour, especially in bad habits of body, and after long continuance; but is usually more offensive, and redundant in quantity.

When

When the menses suddenly cease, in women of a full habit, they should content themselves with less food, and that of a less nourishing kind than what they had before been accustomed to take. They should also take sufficient exercise, and keep the body open; a little rhubarb, taken once or twice a week, or an infusion of hiea picra in wine or brandy, will properly answer this purpose.

OF PREGNANCY.

THOUGH pregnancy cannot be considered as a disease, it is accompanied with complaints that cannot absolutely be cured but by child-birth, though they may be greatly mitigated by medicine. Before any one ventures to do any thing, however, in these or the like cases, it is very necessary that he should be fully convinced whether the patient is with child or not; and this is known by the following symptoms, in cases where there is no occasion for distimulation, or no other distemperature joined with this; but when the woman chooses to conceal it, and there is a complication of disorders, the utmost proofs amount only to presumptive ones.

The first sign of it is the stoppage of the menstrual discharges, provided there is no other apparent cause. But though this is the plainest and most obvious symptom, it is by no means a certain one; for a suppression of this kind may happen from latent or hidden causes. A second symptom is a particular nausea at the sight of meat, or even the smell of it, while the person is otherwise well in health, and can eat heartily of other foods. A third symptom is, a swelling of the belly; which appears regularly round or globose, not irregularly protuberant, as is the case in disorders of the liver, and other viscera. This swelling also increases placidly, or gently, without a swelling of the legs, or any other symptom, if the person is otherwise in health.

After this, the twentieth week of pregnancy gives the most certain of all the signs, the motion of the foetus; but this is not to be distinguished, without particular attention

tention and care, from motions of the bowels in flatulencies, which often so much resemble it as to deceive the unwary.

If the mother chooses to conceal the symptoms, the fact may, however, be usually found out at this period; for if a cold hand be laid upon the belly when warm, or a warm hand when it is cold, the fœtus generally stirs, and the very figure and appearance of the belly will give very probable assurances to a person accustomed to such inspection.

In cases of a certain conception, a living fœtus is only to be distinguished from a mole, or false conception, by its moving; when a person, therefore, advances towards the full time, without ever perceiving the child to stir, it is very much to be suspected that it is a mole; which also is the more probable if the menstrual discharges have come on irregularly during the time, and the swelling of the belly be irregular, and the woman subject to violent flatulencies; and especially if she goes beyond the natural period of nine months.

But these symptoms are not all to be expected in every pregnant woman; for many of the laborious part of the lower class of life, go through their whole time in the midst of fatigue and trouble, and that without any of these symptoms; so that they are in a great measure to be attributed to the course of life, not the course of nature, in the pregnant women of superior rank. Those women are the most subject to them who are of a tender and delicate frame, and those who are of a plethoric habit, an idle life, or given to intemperance, or subject to passions of various kinds, as grief, anger, fear, or the like.

These are the more natural and less troublesome symptoms of pregnancy, but this state is often attended with others more troublesome or injurious, which art is able in some degree to mitigate. Some are subject to violent bleedings at the nose, which are to be treated in the common way, and are usually as easily cured as any other complaints of that kind. In others the hæmorrhoidal

hoidal discharges are very large during the time. These are to be assuaged by giving powder of nitre, cinnabar, and crab's eyes, once or twice a-day.

Some are also subject to an hæmorrhage of the uterus itself, but this very rarely happens: when it does, it may be owing to two causes, and may have two modes of making its appearance. In the first it flows as in the common way of the menstrual discharges, during the first months of pregnancy, and by that means greatly disturbs the regular calculation of the time. In the other case it stops during the first months, but comes on again about the middle of the time, or later than that, and in this case it usually continues regularly to the time of delivery: both these cases bring on great danger of miscarriages. In these cases, nitrous, cinnabarine, and absorbent medicines are to be given; to which are to be added corroborating ones; and bleeding in the arm must never be omitted.

Head-achs frequently attend women during their pregnancy: these are chiefly owing to occasional causes; such as violent emotions either of the body or mind, an improper cooling of the lower parts of the body, or the drinking of spirituous liquors. To take off this troublesome symptom, attemperating and nitrous medicines should be given, with laxatives of the most gentle kind; and externally the head should be rubbed with spirit of wine and camphor, if the person can bear the smell of it, which often in this case she cannot.

A weariness or lassitude is another very common and very troublesome accident attending pregnancy; and is to be remedied by proper bleedings and gentle exercise; and if these fail, the nitrous powder before given may be added to quiet the emotions of the blood, and this usually takes effect.

A dry cough and difficulty of breathing are not unfrequently attendant on this state: these require the same methods; but when the difficulty of breathing comes on after meals, the saline and digestive powders may be given in small doses; such as the vitriolated tartar, with the nitrous and absorbent powders; and when

it comes on only in the latter months, and arises merely from the pressure of the distended uterus, patience is the only cure till the time of delivery; when the symptom always goes off of itself on the subsiding of the womb.
Junc. Consp. Med.

Abortion may happen at any period of pregnancy, but most commonly in the second or third month. Sometimes, however, it happens in the fourth or fifth, and those which happen in the sixth or in later months, are most dangerous. If abortion happens within the first month, it is usually called a false conception; if after the seventh month, the child may often be kept alive by proper care.

The miscarriage of pregnant women is principally owing to a plethora, and is most frequent with young plethoric women, in the first months of their pregnancy. There are, however, several other causes which concur to it; such are, any violent passions or affections of the mind, as sudden anger, fear, or the like; an habitual great discharge at the time of the menses, a high-seasoned diet, with much wine, or other strong liquors; the taking of strong purges, or violent emetics; diarrhæas, especially when of long continuance, as they drain off the nourishment from the fœtus; a tenesmus, or violent motion to stool, and hence the use of stimulating clysters may also bring on an abortion: As also any commotions of the body, such as running, leaping, carrying heavy burthens, falls, or blows on the abdomen. A too frequent use of venery may also occasion it, as may also the smell of burning oil, or any other stinking substance; a fluor albus, or other disorders of the womb; the taking opiates, and the death or debility of the child, while in the womb. A miscarriage may also be occasioned either by too great a stricture, or an extreme relaxation of the uterus.

The signs of approaching abortion are pains in the loins, or about the bottom of the belly; a heavy disagreeable pain in the inside of the thighs; coldness, or shivering, palpitation of the heart; sickness; the breasts become flat and soft; the belly falls, and blood and watery humours are discharged from the womb.

The best methods of preventing abortion, are the use of attemperating, and particularly the nitrous medicines after every commotion of the blood; bleeding at proper times, corroborating medicines, and the milder carminatives; and to these are to be added temperance in diet, placid motion of the body, and cheerfulness of mind. Egg-shells are by some greatly recommended, and by others the stones of raisins, which are indeed manifestly astringent.

Women of a weak relaxed habit should not proceed to excess in the use of tea, or other weak and watery liquors; they should use solid food, rise early, and go to bed soon; avoid damp houses; take frequent exercise in the open air, and shun as much as possible, damp foggy weather. Women of a full habit should use a spare diet, avoid strong liquors, and whatever may have a tendency to heat the body, or increase the quantity of blood. Their diet should be opening, and consist principally of vegetable substances.

When any signs of abortion appear, the woman should be laid in bed on a mattrass, with her head low; and she should be soothed, comforted, and kept quiet, and not too hot. Her food should consist of broths, jellies, rice-milk, gruels, &c. taken cold. If she is in a situation to bear it, she should lose about half a pound of blood from the arm. Her drink should be barley-water, sharpened with lemon-juice: or she may take, every five or six hours, half a dram of powdered nitre in a cup of water-gruel. If she should be seized with a violent looseness, she should drink the decoction of calcined hartshorn prepared. If she be troubled with vomiting, she should often take two table-spoonfuls of the saline mixture: Opiates are generally of service, but they should be administered with caution. Sanguine robust women, who have been accustomed to miscarry at a certain time of pregnancy, should by all means lose some blood a few days before that period arrives.

Costiveness in the time of pregnancy is very common, and is usually owing to the want of drinking and ex-

ercise; sometimes indeed it is occasioned by the immediate pressure of the womb upon the rectum; but this case is known from the others, as it is always attended with a tenesmus. This complaint is to be relieved by a soft lubricating diet, the drinking more liquids than before, and the using placid motions of the body, or gentle exercise. Gum ammoniacum is also found a very useful medicine in this case, and sometimes gentle effusions of fenna are necessary; but these can only be given in very small doses. Some use suppositories that are not acrid or pungent, and others clysters of water-gruel.

Diarrhæas, in pregnant women, are usually from the same causes with those in other persons; but they require, in this case, a very particular regard, because, when long continued, and accompanied with a tenesmus, they usually bring on abortion. They are to be gently restrained, and finally stopped, in the following manner: strengthening, carminative, and stomachic medicines are to be given, as candied orange-peel, preserved ginger, calamus aromaticus, and the marmalade of quinces; and, while these are taken internally, balsamics, and stomachic plasters, applied to the stomach, have also a very great effect.

The fluor albus very rarely affects women with child; but when it does, it is very difficult of cure, because the purging medicines necessary to be given in it are by no means to be allowed of in the time of pregnancy. In this case it can only be restrained by the use of correctives, cleansers, and carminatives: of this kind are infusions of the bitter herbs, with pimpnel root, balm, southernwood, and white dead nettle-flowers; or these ingredients may be made into powders, and taken in red-wine.

Besides all these complaints, women are subject to several others, during pregnancy, which depend upon the mere weight and pressure of the uterus: of this kind, are pains in the back and loins; which are principally felt in the last months, when the belly is greatly swelled and drawn forwards; in others, at the same period,

period, the belly feels much pain, and appears red in many places, as if it threatened to burst. These complaints are rendered worse by all motion, and they admit of no cure but child-birth, which immediately takes off the whole pain.

Frequent desire of voiding the urine is often very troublesome to pregnant women; especially in the latter part of their time, particularly in the last weeks: if it happens sooner, as it sometimes does, it is owing to the womb's hanging too much downward, from a laxity of the ligaments. This is a complaint of no ill consequence, and therefore, though troublesome, is to be borne with patience, delivery being its proper cure.

A stranguary and temporary suppressions of urine happen also frequently to pregnant women. In these cases powders of nitre and cinnabar are to be given internally, and externally emollient cataplasms are to be applied warm till the disorder ceases. Many women are very weak, and subject to frequent faintings, during pregnancy: these should take, at times, a gentle dose of some laxative medicine, and in the intermediate days the strengthening and stomachic medicines, with the milder carminatives.

OF DELIVERY OR CHILD BIRTH.

A LEGITIMATE delivery is that which happens at the just term, that is in the tenth *lunar* month; and that is deemed an illegitimate delivery, which happens either sooner or later; as in the eighth, or after the tenth. Hoffman says, that the usual time of gestation is nine solar months. Juncker is of opinion, that the natural time of delivery is in the fortieth week from the first suppression of the menses, or the twentieth, or twenty-first from the time when the motion of the *fœtus* is first perceived; and he adds, that it is a good omen if the time of delivery be at or near that of the usual discharge of the menses in a state of health.

This question has been agitated in the courts of law with respect to bastards, the result of which may illustrate

illustrate our medical calculations. As all children born before matrimony are bastards; so are all children born so long after the death of the husband, that by the usual course of gestation they could not be begotten by him. But this being a matter of some uncertainty, the law is not exact as to a few days. In *Coke's Institutes*, 123 b, the time of gestation, as connected with this question, is inquired into at great length, and with exquisite nicety and accuracy. On the whole it appears, that what is considered as the *usual* period is forty weeks, or two hundred and eighty days. But though the child is born some time after, it only affords *presumption*, not proof of illegitimacy.

The information of the late celebrated Dr. Hunter, is also given, from which we learn, 1. That the usual period is nine calendar months; (from 270 to 280 days;) but there is very *commonly* a difference of one, two, or three weeks.—2. A child may be born alive at any time, from three months, but we see none born with powers of coming to manhood, or of being reared, before seven calendar months, or near that time; at six months it cannot be—3. The Doctor said he had *known* a woman bear a living child, in a perfectly natural way, fourteen days later than nine calendar months; and he *believed* two women to have been delivered of a child alive, in a natural way, above ten *calendar* months from the hour of conception.

It has been observed that deliveries are more happy in the seventh month than in the eighth; or, in other words, that the child is easier saved, and more frequently lives, when it comes in the seventh than in the eighth month.

Besides the more decisive symptoms of approaching delivery, women in these circumstances are subject to pains, which are called false and spurious. They exhaust the strength of the patient, without promoting the birth: pains of this kind may be distinguished from the true labour pains, by their being of a flatulent kind, and running sometimes transversely across the abdomen, and sometimes upwards from it towards the breast; they

they are usually owing to costiveness, a purging, or a plethora. If the *os tincae* is shut during these pains, it may be concluded that they are false; and if the patient is costive, a clyster should be administered; if a purging attends them, gentle opiates will relieve; and if a plethora, bleeding will be proper.

Some have recommended stimulating cordials; but others have observed, that true labour pains are best promoted by opium. The true symptoms of approaching delivery, and the process of it, are as follow. Some days before the labour commences, the contents of the belly sink, and its size is apparently diminished: Soon after pains are felt, which are at first slight, and return at considerable intervals; in consequence of these the uterus begins to contract, and a mucous matter is discharged from the vagina; then the pains return quicker, continue longer, and are more severe; the pulse is affected, the skin becomes hotter, the face reddens, and a general agitation follows; the mucus is tinged with blood; the *os tincae* opens, and its edges grow thin; the membranes protrude with the waters, dilating and widening the orifice.

The child, at the instant of pain, is raised by the compressed waters from the *os internum* towards the fundus, whilst the uterus itself descends by degrees into the inferior basin. When the pain ceases each time, the womb rises, the tumour formed by the membranes disappears, the *os tincae* is relaxed, and the diameter diminished; the child falls upon the lower part of the womb, and may be easily distinguished, as well as the part that presents itself to the passage, through the relaxed membranes. Towards the end of the labour, the pains succeed more rapidly, and with greater violence; at first they usually begin in the small of the back, and terminate about the pudenda, but now they begin in the *regio umbilicalis*, and die away towards the fundament, where they commonly leave a sensibility of weight.

The tumour formed by the waters distending the membranes below the mouth of the womb, dilates the parts,

parts, till at length it bursts and discharges the waters. If the child's head presents fairly, it stops the discharge of the waters. Sometimes the same effort which bursts the membranes, expels the infant, and terminates labour. At other times, the interval is long before the delivery of the child. The head of the child, having passed the os internum, enters the vagina, which widens in proportion as it shortens; the perinæum is much stretched, and the frenulum sometimes torn in the passage; the nymphæ are obliterated, and the labia pudendi turned inward, and confounded in the general distension. At length the head forces the os externum, and the body readily follows, with the rest of the waters mixed with blood. In this last period the woman trembles, and is soon relieved by the expulsion of the child; sometime after which, returning efforts are exerted for the exclusion of the placenta.

The proximate, or immediate cause of delivery, is the contraction and compression of the womb, which is muscular and reticulated, or resembling net-work, formed of fibres running parallel on its inner surface from the fundus to the neck; of others crossing these diagonally, and of others again horizontally interlaced, and closely wove towards the fundus; and the irritation which the womb suffers at the end of pregnancy from the increased bulk of the fœtus, and the consequent dilation of the uterine fibres beyond their limited dimensions, is the remote cause of delivery.

The doctor, &c. should be attentive and patient, and watch every opportunity of aiding the efforts of nature, without forcing them. Whenever he examines the patient by touch, in order to know the state of the uterus, he should convey a small portion of some oily matter, as soft pomatum, &c. into the vagina, to anoint the mouth of the uterus, that it may dilate itself with greater ease and expedition.

When the infant presents itself for birth, he may gently draw it forward, observing that it is not in any part entangled by the navel-string. When it is brought
• alive

alive into the world, it should be laid on its side that it may breathe more freely, and have its face kept out of the waters discharged during the delivery.

If, after the delivery of one child, the uterus is much distended, and the operator upon touch finds another set of membranes, he may conclude that another child remains in the uterus; he should therefore tie the navel-string of the first in two places, and wait for pains coming on to deliver the next, unless it presents itself in a bad position, in which case it should be brought away by the feet. But if, after the delivery of one child, the uterus is contracted into a firm hard ball above the os pubis, he may infer that there is not another, and proceed to bring away the secundines, or after-birth.

When the infant is disengaged from the navel-string, which now hangs out of the vagina, the operator should twist it about two or three fingers of his left-hand, then passing his right-hand up the vagina, he must with his thumb and fore-finger, hold the navel-string as near the secundines as he possibly can; and if, on drawing the navel-string gently, he perceives the after-birth advancing gradually, there is hope that he may soon bring it away. If, on the contrary, he perceives that it does not in the least yield to his attempts, it adheres so strongly to the uterus; in this case he must draw the navel-strings sometimes to the right, and sometimes to the left, in order gradually to disengage the secundines. But this must be done gently, and without the least violence.

If, through inadvertence and precipitation, the navel-string should be pulled with violence, it might be broke, which would render the extraction of the after-birth very difficult; or the secundines being forcibly separated from the uterus might occasion an hæmorrhage, in consequence of a rupture of the vessels of the womb, or it might bring along with it the bottom of the womb; a falling-down of which often occasions the death of the mother.

As soon as the woman is delivered, the parts of generation should be covered with a moderately warm cloth, consisting of several folds. She is to be kept warm in bed, and left for some time in a state of repose.

During actual labour, nothing should be given to the patient that is of a heating nature. She may now and then take a little panada, and her drink should be toast and water or thin gruel. Wine, spirits, cordial waters, and other things which are given with a view to strengthen the mother, and promote the birth, generally tend to increase the fever, inflame the womb, and retard the labour. Besides, they often occasion violent and mortal hæmorrhages, or dispose the patient to eruptive and other fevers. There are, indeed, exceptions to this rule, for some women cannot be supported without solid food, and generous liquors; such persons may therefore be safely indulged with a glass of wine and a bit of chicken.

SUNDRY SUBJECTS, DISEASES, &c. *not regularly admissible into Classes.*

OF SLEEP.

ALL animal bodies, from an active and self-moving principle within them, as well as from the rubs of surrounding bodies, are constantly throwing off some of their superfluous decayed parts. To restore this decay and wasting, nature has wisely made alternate periods of labour and rest, sleeping and watching, necessary to our being: the one for the active employments of life, to provide for and take in the materials of our nourishment; the other to apply those materials to the proper wasted parts, and to supply the expence of living.

It seems as improper, in the order of nature, to disturb the animal functions in the time of sleep, by any other employment than the applying the nourishment
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to the decayed parts, to recruit the blood, perfect the secretions, and to lay up plenty of spirits; or, to speak more philosophically, to restore the weakened tone of nervous fibres; as it would be to eat or drink, or make provision for the necessaries of nature, in the time of sleeping. Hence is evident the absurdity of heavy, various, and luxurious suppers, or of going to rest till many hours after such a meal, which must otherwise break in upon the order of nature, and the due and appointed times of sleeping and watching. The valetudinary, the studious, and contemplative, should either take no suppers, or those consisting of only vegetable food, and avoid sleeping a due time after them.

That light suppers occasion sound sleep is a generally approved maxim. Many persons who exceed moderation at that meal, are certain of experiencing uneasy nights; the stomach and spirits, oppressed by too great a load, occasion horrible dreams, disturbed repose, or perhaps the incubus or night mare, &c. But when a person has only taken a light supper, or sits up till the meal is pretty well digested, he generally enjoys sound sleep, and rises refreshed and cheerful in the morning.

There are persons, indeed, who cannot sleep without having supped upon solid food, but this does not point out the necessity of a heavy supper; besides those who have accustomed themselves to these methods, are such as do not take a sufficient quantity of solid food in the course of the day.

There is nothing more certain than that our sleep is sound, sweet, and refreshing, according as the alimentary organs are easy, quiet, and clean. If any one, not suffering under any disease, is disturbed in his sleep, it is certain that his stomach is filled with food or crudities, or his body with wind, choler, or chyle. And these restless nights, and the difficulty of going to sleep, which are generally ascribed to the vapours, are entirely owing to these causes.

Upon complaints of such restless nights, it generally appears, upon enquiry, that the true cause may be found in the diet of the preceding day, or of some

few days before ; some error in eating or drinking, either in quantity or quality, has produced them.

The seasons for sleeping and watching, which nature seems to point out to us, as least in these our climates near the tropic, are the vicissitudes of day and night. Those damps, vapours, and exhalations that are drawn up into the higher regions, and are so rarefied by the heat and action of the sun, as to become innocent, or very weak in the day-time, are condensed, sink low, near the surface of the earth, and are perpetually dropping down in the night-season ; and consequently must be injurious to those tender persons, who naturally watch in that season, and must necessarily obstruct the perspiration, which the activity of watching, and the motion of labour promotes.

Our bodies draw and suck into them the good and bad qualities of the surrounding air through the mouths of the perspiratory ducts or channels of the skin. And were we to view an animal body with a proper glass, it would appear with an atmosphere quite round it, like the steam of a boiling pot.

We may easily conceive what injury a constitution may suffer, not only by stopping such a perpetual discharge of superfluities, but also by forcing into the habit, by the air's weight and pressure, those noxious fumes and vapours that are perpetually falling near the surface of the earth in the night-time. Your true stanch toppers are so sensible of this, that, by observation, they have gathered it to be more safe for the health, and better for prolonging their lives, to get drunk betimes and go to bed, than to sit up and be sober.

On the contrary, the heat of the sun in the day-time, by its action on human bodies, the very light, and free air, and the motions of things about us, disturbing the quiet of the air, must necessarily disorder the equable uniform course of the perspiration, and the tranquillity of the spirits, so necessary to rest and quiet ; so that nothing seems more directly pointed out to us by nature, than the day for labour, and the night for rest.

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Some animals that are extremely tender, are directed by nature to alternate periods of watching and rest; not twice in twenty-four hours, but twice in the year, as summer and winter; such as swallows, bats, and many sorts of insects, which sleep all the winter, and watch all the summer. So consistent is nature, in appointing the brightest and most enlightened parts of our lives for action, and the darkest and most inclement for rest.

Nothing more certainly destroys the constitution than night-watching; it is equally destructive of our health and happiness. It will even blast and wither the most vivid and blooming complexion, and deprive it of its roses and lillies. It is a common lamentation, among the higher ranks of society, that they have turned day into night, and night into day.

Anxiety is a great disturber of repose; sound and refreshing sleep is very seldom the lot of those whose mind is not at ease. When agitated with grief and anxious thoughts, in vain we attempt to rest; but every one should endeavour to compose himself as much as possible, as his health is an object to him.

Sleep in the former part of the night, is said to be much more refreshing than that which is taken afterwards. To be a proper candidate for sleep of a night, a person should exercise in the open air throughout the day; he should also content himself with a light supper; and lie down with a mind perfectly serene and cheerful.

SEDENTARY AND STUDIOUS PERSONS.

VALETUDINARY, studious, and contemplative people, ought to go to bed by eight, nine, or ten at farthest; and rise by four, five, or six; by which means they will be about eight hours a-bed; and that is sufficient for any one, not under an acute, or the sharp fits of a chronical distemper.

Nothing can be more prejudicial to tender constitutions, studious and contemplative persons, than lying long a-bed, or lolling and soaking in sheets any time after

after a person is distinctly awake, or has slept a due and reasonable time. It necessarily thickens the juices, enervates the solids, and weakens the constitution. A free open air is a kind of cold bath, especially after rising out of a warm bed; and consequently makes the circulation brisker and more complete, and braces up the solids, which laying a-bed dissolves and sucks in moisture.

The erect posture, and the activity of watching, make the perspiration more plentiful, and the gross evacuations more readily thrown off. This is evident, from the appetite and hunger which those who rise early feel, beyond that which they get by lying long a-bed. Add to all these, the influence of the fresh benign, morning air, the retreating of all the noxious damps and vapours of the night, together with the clouds and heaviness which are thrown upon the brain from sleep; and lastly, that cheerfulness and alacrity which is felt by the approach or presence of that glorious luminary the sun, which adds a new force to the heart, and a vigorous spur to the spirits.

All ages and nations have agreed, that the morning season is the proper time for speculative studies, and those employments which most require the faculties of the mind. For then the stock of the spirits is undiminished, and in its greatest plenty; the head is clear, and serene, the passions are quieted and forgot, the anxiety and inquietude which the digestions beget in the nervous system, in the most tender constitutions, and the hurry the spirits are under after the great meal, are settled and wrought off.

Hence it appears essentially necessary, that those who are of a weak and relaxed state of nerves, who are subject to hypochondriacal or hysterical disorders, whose professions lead them to much use of their intellectual faculties, or who would indulge speculative studies, should go early to bed, and rise betimes; employ their morning hours in their exercises till eleven o'clock, then take some agreeable breakfast of vegetable food; and go on with their studies and profession till
three,

three, four, or five, as their spirits will hold out, and then to take their great meal of animal food.

During the remainder of the day, they should throw off all study and thought, and divert themselves agreeably in some innocent amusement, with some gentle bodily exercise; and as soon as the digestion is over, require and provide for going to bed, without any farther supplies, except it be a glass of fair water, or warm sack-whey. But the aged and infirm must go to bed sooner, and lie longer, because age and infirmities disturb rest; and the stiffened and hardened limbs of the ancient become more pliable and relaxed by much sleep, a supine posture, and the warmth of the bed.

That kind of melancholy which is brought on by immaterial causes alone, such as that arising from too intense study, or other imaginations or effects of the mind, is always much more obstinate and difficult of cure than that which depends upon material causes, and has its origin in a distempered state of the body.

Nervous fevers have lately much increased in this country, owing perhaps to our different mode of living, and the increase of sedentary employments; as they generally attack persons of a weak relaxed habit, who eat little food, study hard, neglect exercise, or indulge in spirituous liquors.

Nervous disorders often proceed from intense application to study; for intense thinking preys upon the spirits, and prevents the persons from taking proper exercise, in consequence of which the digestion, &c. is impaired.

Hard study, and a sedentary life, must be very injurious to health; for when intense thinking is accompanied with want of exercise, which is generally the case, who can be surprised at the speedy destruction of a good constitution by a few months close application to study?—Man is as incapable of continual thought, as he is of continual action.

Though we entertain but an indifferent opinion of one who is thoughtless, full of levity, and wholly in-

attentive to his concerns in life ; yet, on the other hand, a person who thinks too much may perhaps be infinitely more culpable. Thinking, when carried to such an extreme as to injure health, becomes a vice ; for it is not only allowable, but praise-worthy, that a man should moderately and seasonably unbend himself, by mixing with the votaries of mirth and pleasantry, to enjoy the innocent amusements or diversions of a social hour.

Studious persons are very liable to the gout, a disease which often proceeds from indigestion, and an obstructed perspiration. The stone and gravel are frequently the consequence of inactivity, and a sedentary life. Not only want of exercise, but the posture in which studious persons usually sit, is very prejudicial to the lungs.

Dr. Cheyne, in his Treatise on Health, has the following " Rules for health and long life, drawn from " sleep and watching," which, though in some respects similar to what we have already advanced on the subject, we feel ourselves warranted to lay them before our readers in his own words:

1. " The valetudinary, the sedentary, and the studious, should eat very light, or no suppers ; if any it ought to be vegetable food ; neither ought they to go soon to bed, after any supper whatever."

2. " Going to bed on a full stomach, and wind and crudities somewhere in the alimentary passages, is the cause of the want of due rest, which is sound and refreshing, always in proportion to the emptiness and cleanness of these passages, and their vacation from their proper office of digestion ; and this is the cause of the want of kindly and refreshing heat, in hypochondriacal and hysterical people."

3. " Watching by night, and sleeping by day, is of the most pernicious consequence to health and long life, and plainly contrary to the indications of nature, and the constitutions of our bodies."

4. " The valetudinary, the sedentary, and studious, ought carefully to avoid evening dews, nocturnal studies, and uneasy watching ; go to bed by eight, nine, or ten, and rise proportionally by four, five, or six, unless actually under a fit of sickness."

5. " Nothing

5. "Nothing is more prejudicial to tender constitutions, than lying long a-bed, indulging a lethargic and drowsy sleep; or lolling or loitering awake." *Cheyne on Health.*

In another treatise, the same author thus expresses himself on dreaming.—"Dreaming is but partial sleeping, for sleep admits of all the degrees of quantity there are between sound undreaming sleep, and perfectly healthy waking, all the degrees and terms that are between a given quantity and nothing; and accordingly labour, fatigue, light food, gentle evacuations of all kinds, will procure, in some degree, undreaming sleep; and the more rank, high, and poignant the aliment, the more painful and terrifying will be our dreams; as, on the other hand, the more mild, soft, and light our food is, the more pleasant and gentle will be our dreams, if otherwise healthy."

"Old persons, weak and sickly constitutions, and people under acute and chronical distempers, especially those that are called nervous and cephalic, have the wildest, most inconsistent, and painful dreams, and the most imperfect sleep, and sometimes no sleep at all, which is one of their greatest miseries."

"I should philosophically define sleep, a disability or incapacity of the material organs from exinanition, use, and expence to continue easily much longer the intellectual functions and voluntary motions, without a new repair and winding up, in the same manner as hunger is caused; and dreaming to be only partial and imperfect waking, by a perpetual irritation from flatulence and obstructed perspiration, on the internal nerves and membranes, or from pain; and waking to be the perfect and pleasant pliancy of the intellectual and animal organs, to obey the impulse of the self-motive, self-active spirit, and that in this immaterial agent there is a lower, and more ordinary and weaker effect and energy, (or a contractive and expansive energy) by which the animal functions are perpetuated without interruption; and a higher and more intense and voluntary degree of

“agency, by which waking, and the intellectual operations are performed; and it is this, that in a sound sleep, and in a deliquium, is suspended, and in death both, without a new vehicle.”

OF CLOTHING.

YOUNG people require less clothing, than those at an advanced period of life. Many diseases, in the decline of life, are occasioned by a defect of perspiration; which may be prevented, or, in some measure, cured, by a gradual and proper addition to the clothing, according to the changes of the seasons with regard to heat and cold.

To descend to minute particulars on this head, would be offering an insult to the understanding of our readers: every person, who will take the trouble of thinking for himself, will find no difficulty in ascertaining, from time to time, the quantity and quality of the covering, which will be necessary to defend his body from inclement weather, and the consequences that will probably ensue.

— It would equally favour of impertinence to advise our readers not to wear so much covering on their person in the summer as in the winter; common sense will best dictate what ought be done in all the successions and fluctuations of climates which may occur: As well might we attempt to prescribe fashions for the different ranks of people who inhabit this island, so subject to precarious weather.

Ridiculous and pernicious are all attempts to improve the human figure by dress: yet we have known women, when fashion pointed out a slender waist as the standard of elegant female proportion, torture and squeeze the stomach and bowels to such a degree, as to impede the motion of the heart and lungs, and almost wholly obstruct the vital functions; producing fainting fits, indigestions, coughs, consumptions of the lungs, &c.

The feet sustain great injury from pressure: Why a small foot should be deemed fashionable and genteel, seems to me perfectly unaccountable: a royal foreigner,

now allied by marriage to the sovereign of Great Britain, imported into this country, as report declares, a pair of feet that were diminutive in the extreme. Hence it became the *ton* for *belles* of masculine height and size to imprison their huge supporters within the painful limits of a pair of tiny shoes; not considering that feminine beauty consists principally in the *symmetry* and *proportion* of the parts of the body which compose the whole.

On this principle, which is certainly a very rational one, a small foot, disproportionate to the magnitude of the body, is so far from being a perfection, that it is absolutely a deformity. The feet and toes of children, before art is called in under pretence of improving them, are as perfectly and regularly formed as their hands and fingers; but when the latter are forcibly thrust into a narrow case, pressing and incommoding each other, as must necessarily be the consequence of tight shoes, they become not only blemished and distorted, but are rendered infinitely less capable of proper motion. Hence also originate corns, which are not only troublesome in themselves, but by their making cripples of those who have a propensity for little feet, may also be considered among the remote causes of other diseases.

The high heel, in shoes, ought equally to be avoided. A lady by walking on tip-toe, may perhaps impose upon the inaccurate observer; and deceive him half an inch in her height; but she pays dearly for the imposition which she has put in practice, by the straining and distorting of her limbs and joints; without the further consideration that she is compelled to stoop, and lose all that ease and gracefulness of motion which we so much admire in the female character.

All tight bandages, as stocks, neckcloths, garters, impede the free motion of the parts over which they are used as ligatures. They also obstruct the circulation of the blood, and prevent the equal growth and nourishment of the parts they have restrained. Head-achs, vertigos, apoplexies, and other fatal diseases have originated from this practice.

OF INFECTION.

OF disorders from infection, some require an immediate contact with the bodies of the infected; as in the case of the biting of a mad dog, the lues venerea, and the small-pox, as also the measles, which require at least an approach within the reach of the effluvia from an infected body.

In other instances the infection is spread by more general causes, such as the air, diet, &c. Of these there are three kinds, which differ only in their being more or less in quantity, and are all curable by the same means, applied in different degrees. These infectious effluvia spring from either fermenting vegetable fluids, putrifying animal or vegetable bodies, or mineral exhalations. And it is remarkable that each of these is alike destructive of flame.

It is by the destruction of the vital principle in us, that infection proves so fatal; it is thus that poisons so soon destroy us.

With regard to the kind of effluvia and its degree, different diseases are produced: where mineral exhalations prevail, nervous colics, nervous and intermittent fevers, &c. When putrid ones are diffused in the air, scurvies, gangrenes, &c. are the consequence.

In breathing we take these effluvia into our bodies, and thus occasion their ill effects. They are swallowed with our food, by which their quantity being increased, their power of action is also greater, possessing an assimilating property too; no wonder then that destruction speedy as in many instances it is.

Among the reprehensible methods of spreading infection, is the practice in the different parts of the country, of inviting vast numbers of people to funerals, and crowding them into the apartment where the dead body lies. Few persons require to be informed that the infection, so far from dying with the patient, in many cases increases, as the body increases in putridity. This is certainly the case of those who die of malignant fevers, or other putrid diseases. Such bodies should have

have speedy interment, and people ought not to be permitted to approach them. So similar, indeed, are the effects of the infection and poison, that they may be considered as the same, differing only in their modes of communication.

In times of pestilential contagion, the physician, and others who attend upon the sick, are in the most imminent danger of falling into the same condition; nor have any of the boasted preservatives against this, been found of any consequence: on the contrary, the very remedies, many of them at least, which have been contrived on this occasion, are very dangerous, when lodged in imprudent hands; as well as useless and improper in all.

The best methods of safety, are first, never to visit a patient in any infectious disorder when we are fasting, but some generous wine ought always to be drank first. Some are of opinion, that it is proper to eat first a bit of bread and butter, soaked in vinegar; either simple, or with rue first stamped in it.

When we are in the patient's apartment, great care is to be taken never to eat or drink there, nor to swallow our spittle; and it is no improper custom, in those who are continually in the infected room, to chew zedoary, myrrh, angelica, cinnamon, or the like warm and aromatic drugs; for all these things promote a plentiful discharge of saliva from the mouth, which it is certain, when swallowed, cannot but often carry pestilential particles down with it into the stomach; whence they will easily find their way into the blood. They should also stuff their noses with tobacco, or some other strong-smelling herb, as rue, tansy, &c.

Those who go into an infected room, should not stay long in it; for a constitution that could have resisted the contagion for a short time, may be over-powered by too long a continuance in the way of it.

After the returning home from a visit of this kind, it is proper to wash the hands and mouth with vinegar and water; to change clothes, hanging the former in the air, and then to drink some warm liquor, as tea of scordium,

scordium, sage, or other herbs of that kind; or coffee will be very proper for the purpose. It may also be of great assistance to all those about the sick, to prevent infection, to hold frequently sponges dipped in vinegar to their noses, and frequently to sprinkle vinegar on a red-hot iron in the room, and to smoke tobacco, in order to correct and mend the air.

OF HYDROPHOBIA, OR DREAD OF WATER.

THIS disease does not usually make its attack till a considerable time after the bite. In some few instances it has commenced in seven or eight days from the accident; but generally the patient continues in health for twenty, thirty, or forty days, or even much longer. The bite has been healed long before that time, frequently with the greatest ease; though sometimes it resists all kinds of healing applications, and forms a running ulcer, which discharges a quantity of matter. The patient becomes melancholy, loves solitude, and has a sickness at stomach. Sometimes the peculiar symptom of the disease, *the dread of water*, comes on all at once.

Sometimes the disease begins like a common sore-throat; and the soreness daily increasing, the hydrophobic symptoms shew themselves like a convulsive spasm or contraction of the muscles and fauces. Dr. James, in his treatise on canine madness, mentions a boy sent out to fill up two bottles with water, who was so terrified by the noise of the liquid running into them, that he fled into the house, crying out that he was bewitched. He mentions also the case of a farmer, who, going to draw some ale from the cask, was terrified to such a degree at its running into the vessel, that he ran out in great haste with the spigot in his hand. But in whatever manner this symptom comes on, it is certain that the most painful sensations accompany every attempt to swallow liquids. Nay the bare sight of water, of a looking-glass, of any thing clear or pellucid, will give the utmost uneasiness, or even throw them into convulsions.

With

With regard to the affection of the mind itself in this disease, it does not appear that the patients are deprived of reason. Some have, merely by the dint of resolution, conquered the dread of water, though they never could conquer the convulsive motions which the contact of liquid occasions.

Dr. Fothergill mentions an instance of resolution in a hydrophobic patient, Mr. Charles Bellamy, of Holborn, who was bit by a cat, which was killed the same morning. We shall give it in the Doctor's own words—"Previous to his going into the [warm] bath, in "obedience to the order of his physicians, he desired "to be shaved; it was readily assented to, but proved "a more troublesome operation than he was aware of. "The moment the lather touched his face, he fell "back with surprise; but the part being once wetted "he bore the repetition easily; every fresh part that "was lathered gave him considerable emotion; the "application of the razor had in a degree a similar "effect: in short, every new movement about him "gave him some fresh alarm, some degree of agitation "and anxiety." He took notice of this himself; but, "says he, *I am naturally hasty and choleric; and* "when I am got better of these complaints, I hope you "will assist me in correcting it."

"Whilst he was in the bath," continues the doctor, "the person who attended him, without any particular "intention, took up some of the warm water in his "hand, and poured it on the patient's head and face: "this confused him much; he described to us the "distress it gave him at the time very emphatically; and "added, with much apparent satisfaction, that *he had* "so far conquered his aversion to it, that *he had poured* "water on himself with his own hand in the same "manner. It was in speaking of this affair he mentioned the term *hydrophobia*; observing that his "complaints resembled it; yet without giving us any "reason to apprehend he had the least idea of his "actually labouring under this fatal distemper."

"He

“He had not slept a moment from the time he was seized with the dread of liquids. He repeatedly expressed the satisfaction he received from the bath, and wished to go into it again. We consented, and desired that he might be carried thither again, and to stay in it as long as he chose it.”

The doctor adds, that, “Every new operation now became an extreme difficulty to him; dressing, undressing at the bath, going into the water, which he now did with much intreaty, putting one foot in, and hastily withdrawing it. He was at length prevailed on to go into it. A recollection of the ease he had enjoyed in it before, aided by a manly resolution that never forsook him, subdued his fears, and he remained in it near half an hour. He was brought home about nine o’clock. He refused to take the pills, and every other medicine. He grew fretful and restless, soon became delirious, but offered no violence. After remaining in this condition about two hours, the powers of nature sunk, he reclined his head gently on the pillow, and expired at half past twelve.” *Dr. Fothergill’s Works*, 486.

Resolution, in these cases, seems to have been of no avail; for the convulsions and other symptoms increasing, have almost always destroyed the unhappy patients.

In this disease there seems to be an extreme sensibility and irritability of the nervous system. The eyes cannot bear the light, or the sight of any thing white; the least touch or motion offends them, and they want to be kept as quiet and in as dark a place as possible. In all there is a great flow of viscid saliva in the mouth; which is exceedingly troublesome to the patients, as it has the same effects upon their fauces that other liquids have. This therefore they perpetually throw off with violence, which in *Dr. Fothergill’s* patient, above-mentioned, occasioned a noise not unlike the hollow barking of a dog, and which he conjectures might have given rise to the common notion, that hydrophobous patients bark like dogs. They have an insatiable thirst; but

but are unable to get down any drink, except with the utmost difficulty; though sometimes they can swallow bread soaked in liquids, slices of oranges, or other fruits.

There is a pain under the *scorbiilus cordis*, and the patients mournfully point to that place as the seat of the disease. Dr. Vaughan is of opinion that it is this pain, rather than any difficulty in swallowing, which distresses the patient on every attempt to drink. The voice is generally plaintive and mournful; but Dr. Vaughan tells us there is a mixture of fierceness and timidity in the countenance, which he cannot describe, but by which he could know an hydrophobous person, without asking any question.

It is certain, however, that in this disease the symptoms are so various that they cannot be enumerated; for we seldom read two cases of hydrophobia which do not differ very remarkably in this respect. Some appear to have, at times, a furious delirium, and an inclination to spit at or bite the by-standers; while others shew no such inclination, but will even suffer people to wipe the inside of their mouths with the corner of a handkerchief, in order to clear away the viscid saliva which is ready to suffocate them. In some male patients there is an involuntary erection, and emission of the semen.

In a letter from Dr. Wolf, of Warsaw, to Henry Baker, F. R. S. dated Warsaw, September 26, 1767, we have the following melancholy account of the cases of five persons, who died of the hydrophobia—"None
 "of them quite lost their right senses; but they were
 "all talking without intermission, praying, lamenting,
 "despairing, cursing, sighing, spitting a frothy saliva,
 "screeching, sometimes belching, retching, but rarely
 "vomiting. Every member is convulsed by fits, but
 "most violently from the navel up to the breast. The
 "fit comes on every quarter of an hour; the fauces
 "are not red, nor the tongue dry. The pulse is not
 "at all feverish, and when the fit is nearly over, like
 "a sound pulse. The face grows pale, then brown,

“and during the fit almost black; the lips livid; the head is drowsy, and the ears tingling; the urine limped. At last they grow weary; the fits are less violent, and cease towards the end; the pulse becomes weak, intermittent, and not very quick; they sweat, and at last the whole body becomes cold. They compose themselves quietly as if to get sleep, and so they expire.”

CAUSES. In no disease are we more at a loss to discover the causes than in the hydrophobia. In dogs, foxes, and wolves, it seems to come on spontaneously; though this is contested by some authors. It is said that the causes commonly assigned, *viz.* heat, feeding upon putrid flesh, want of water, &c. are not sufficient for producing the distemper. It does not appear that madness is more frequent among dogs in the warm, than in the cold climates; nay, in the island of Antigua, where the climate is very hot, and the water very scarce, the dogs are said not be subject to this distemper.

With regard to the immediate cause among mankind, there is not the least doubt that the hydrophobia is occasioned by the saliva of the mad animal being mixed with the blood. It does not appear that this can operate through the cuticula, or skin; but when that is rubbed off, the smallest quantity is sufficient to communicate the disease; and a slight scratch with the teeth of a mad animal has been found as pernicious as a large wound. It is certain also that the infection hath been communicated by the bites of dogs, cats, wolves, foxes, weasels, and swine, when in a state of madness.

Some are of opinion, indeed, that only animals of the dog kind, as foxes, dogs, and wolves, are liable to contract this disease; but, in addition to what we have said above on this subject, we deem it necessary to state that Mr. Bellamy's distemper, which we have shewn proved fatal to him, proceeded from the bite of a cat, as will appear from the following narrative:—

“The

“The servant maid having occasion to wash, rose earlier than was usual: upon her entering the wash-house, the cat attacked her, and fixed upon her leg. Her screams brought her master to her assistance; he aimed a blow at the cat, but missed it; the cat then seized his leg, but he soon disengaged himself from her; a chairman passing by was called in, who soon killed her.”

Both the master and maid took the Ormskirk medicines as speedily as possible, and observed the directions given with it. The master's leg soon healed, and he seems to have thought no more of it. Perhaps fortunately for the girl, her leg did not heal; it grew worse and baffled the skill of a young surgeon to whom she applied. We were told she afterwards got into one of the city hospitals, on this account, and was at last perfectly cured.

It is here worth observing, that two persons are bit by a mad cat, at the same time: the first who was bit, and the most severely, escapes; the second loses his life. The wounds of one healed presently; the other's became a sore, notwithstanding endeavours to the contrary. Both used the same preventive means.

May not then the happy escape of the girl be owing to the sore which followed from the bite? It seems probable; and affords a very forcible argument for enlarging the wounds made by the bite of mad animals, and promoting a discharge from them as long as possible. Perhaps this is the only sure preservative against the direful effects of this malignant venom we are yet acquainted with.

“It is with some repugnance,” says Dr. Fothergill, “we point out the inefficacy of a medicine [*the Ormskirk Medicine*] which in this country has established a reputation of its being an infallible preservative—But as this medicine, which has survived the reputation of many others, has in this instance been found to be ineffectual; it seems to be absolutely necessary to apprise the public of the fact, which, as far as one evidence can extend to, is decisive: The same

“medicine procured by an unexceptionable hand (the
 “apothecary, who urged its being given, from a tho-
 “rough persuasion of its affording perfect security) from
 “the place authorised to sell it; and given precisely
 “according to the prescriber’s directions, to two per-
 “sons bit by the same animal, and at the same time;
 “the person first bitten escapes, the second dies of the
 “Hydrophobia.”

“Was it not of the last consequence to those who
 “may become the unhappy objects of such applications,
 “to be informed that even this medicine had failed of
 “success, we should not endeavour to bereave them
 “of the comfort which the unfortunate might derive
 “from an *opinion* that it was infallible; but when
 “there is *such evidence to the contrary*, it becomes
 “necessary, for the public benefit, to endeavour to
 “remove prejudices that may be fatal to the real safety
 “of individuals.”

When we attempt to investigate the nature of the cause of the hydrophobia by dissections, our enquiries are generally disappointed. In two bodies opened by Dr. Vaughan, there was not the least morbid appearance; in the very fauces, where we might have expected that the disease would have shewn itself most evidently, there was not the least appearance even of inflammation. The stomach, intestines, diaphragm, &c. were all in a natural state; neither do we find, in authors of credit, any certain accounts of morbid appearances in the bodies of hydrophobous persons after death. After the death of Mr. Bellamy, whose case we have related above, the condition of the part which was bit, was examined with attention, but without perceiving the least morbid appearance.

SYMPTOMS. When a person is bit, the symptoms with regard to the ensuing hydrophobia, are very uncertain. All those who are bit do not fall into the disease; nay Dr. Vaughan relates, that out of thirty bit by a mad dog, only one was seized with the hydrophobia. During the interval between the bite, and the time the disease comes on, there are no symptoms
 by

by which we can judge whether it will appear or not. When once it has made its appearance, the symptoms are exceedingly fatal.

PREVENTION and CURE. It hath been generally allowed, that though the hydrophobia may be prevented, yet it can seldom or ever be cured after it has made its appearance. A great number of different methods of prevention have been attempted. Bathing in the cold water, especially in the sea, and drinking sea-water for a certain time, have been prescribed, and by some accounted a certain preventive.

When this was known to fail, violent submerſion or ducking in the water, even to danger of drowning, and keeping the wounded place open with cauteries, were recommended.

To this extreme ſeverity, Dr. Mead objected; and, in his treatiſe on this ſubject, endeavours to ſhew, that in all ages the greateſt ſucceſs hath been reaped from diuretics; for which reaſon he propoſes the following powder: Take aſh-coloured ground liver-wort, half an ounce; black pepper, two drams; reduce them ſeparately to powder, and mix them together. But this medicine, which was formerly inſerted in the London Diſpenſary under the name of *Pulvis Antilyſſus*, has long loſt its credit.

There is alſo a famous Eaſt-India medicine, compoſed of twenty-four grains of native, and as much factitious cinnabar, made into a powder with ſixteen grains of muſk. This is called the *Tonquin* medicine, and muſt be taken in a tea-cup full of arrack or brandy; and is ſaid to ſecure the patient for thirty days, at the expiration of which it is to be repeated; but if he has any ſymptoms of the diſeaſe, it muſt be repeated in three hours, which is ſaid to be ſufficient for a cure. The firſt doſe is to be taken as ſoon after the bite as poſſible.

Another celebrated remedy is Palmarius's powder, compoſed of the leaves of rue, vervian, ſage, polypody, wormwood, mint, mugwort, balm, betony, St. John's-wort, and leſſer centaury. Theſe herbs muſt be gathered

thered in their prime, dried separately in the shade, and then powdered. The dose is a dram, or a dram and a half taken every day.

A medicine which might promise to be more efficacious than any of those hitherto mentioned, is mercury. This hath been recommended in frictions, and to be taken inwardly in the form of calomel and turbith-mineral, in order if possible to raise a slight salivation, on which the efficacy was thought to depend. Besides this, bleeding, opium, the bark, camphire, have been tried in very large quantities; the warm bath; and, in short, every thing which human invention could suggest.

The last celebrated antidote against the poison of a mad dog hath been known for some years by the name of the *Ormskirk* medicine; Dr. Fothergill's opinion of which we have already given. The true composition of this is kept a secret by the proprietors; however it hath been analysed, and the following composition published by Dr. Heysham as perfectly similar to it in all respects:—

“Take half an ounce of chalk, three drams of Armenian bole, ten grains of alum, one dram of elecampane in powder; mix them all together, and add six drops of oil of anise.”

They must be very credulous indeed who can put any confidence in such an insignificant medicine, as a preservative against the hydrophobia: however, there is a possibility that there may be some unknown ingredient in the genuine powder; for it is difficult to analyse powders after the ingredients are thoroughly mixed together. The efficacy of the medicine therefore must depend on the virtues of that unknown ingredient, if any such there is.

Many instances might be adduced, besides that already mentioned, of the inefficacy of this pretended specific: the danger of acquiescing in which, will, it is hoped, create a due degree of caution, in those to whom they who are so unfortunate as to be bit by a mad animal may commit themselves. Of the great variety

variety of remedies which have had their day of reputation, there is not one which has not possessed the credit, some time or other, of preventing the noxious effects arising from the bite of a mad dog. A more adequate experience has, with all of them, discovered the deception.

It was above observed, that the hydrophobia is by no means the infallible consequence of being bit by a mad animal: and that of between twenty and thirty persons, who were bit by the dog which gave the fatal wound to one of Dr. Vaughan's patients, not one felt the least ill effect but himself. "In the above number" says the Doctor, "were some who took the Ormskirk medicine, others went to the salt water; and a part of them used no remedy, who yet fared equally well with the most attentive to their injury."

From all that has been said, the reader will be enabled to judge how far the hydrophobia can be subdued by any of the medicinal powers which have yet been tried. Some eminent physicians assert that it is totally incurable; and alledge that the instances recorded, by different authors, of its cure, have not been the genuine kind, but that which comes on spontaneously, and which is by no means dangerous.

Whatever plan may be pursued in hopes of curing this dreadful malady, after any of the symptoms have made their appearance, we ought, in every instance of the accident that gives rise to it, to direct our immediate care to prevention, as being, *perhaps, the only real ground of hope*: and the most certain and efficacious way of preventing the ill consequence, is *instantly* to cut out the piece in the place that happens to be bitten.

On this subject a modern author thus expresses himself—"When the shocking effects sometimes resulting from this injury are considered, and the uncertainty of success arising from the employment of such medicines as have hitherto been tried, is also contemplated; the propriety of endeavouring to excite every one to the prompt adoption of the *only means of obtaining security*, will, I think be manifest.

"From

“ From the absorption of the saliva, conveyed by the
 “ teeth of the animal into the wound he inflicts, is the
 “ hydrophobia supposed to proceed. The more speedy
 “ and complete its removal, the less chance is there
 “ for absorption. Consequently, in every case of bite
 “ from an animal, in which there is reason to suppose
 “ hydrophobia exists, the piece should be *immediately*
 “ *cut out*; so carefully including even the parts im-
 “ mediately surrounding the wound, both at the bottom
 “ and sides, that a probability shall not exist of the
 “ knife’s coming in contact with the wound made by
 “ the animal. For should this be the case, not only
 “ would the excision be incomplete, but the knife itself,
 “ imbued with the poison, would serve to multiply the
 “ infection.”

To this effect, Dr. James says, that he should have little opinion of cutting or cauterising, if ten minutes were suffered to elapse from the receiving of the bite before the operation was performed: but, in an inaugural dissertation lately published at Edinburgh, by Dr. Parry, the author is of opinion that excision, or extirpation, will be of use a considerable time after the bite is received. He adopts this opinion from what happens in the small-pox, where the blood does not seem to receive the infection till some days after inoculation has been performed. A second inflammation, he tells us, then takes place, and the infection is conveyed into the blood.

In like manner, when the hydrophobous infection is about to be conveyed into the blood, according to him, the wound, or its cicatrix, begins again to be inflamed; and it is this second inflammation which does all the mischief. Excision, or the cautery, will therefore be effectual at any time betwixt the bite, and the second inflammation of the wound.

Without implicitly trusting to this doctrine, however, or considering it as in any degree ascertained in what manner the poison diffuses itself, by what marks its progress may be known, or how soon the system may be irremediably tainted with its malignity; it is certainly

tainly safest not to lose unnecessarily a moment's time in applying the knife. This, or a dilation, or extension of the wound, if it be small, Dr. Vaughan considers as the only prevention that can be depended upon. On these cases, Dr. Wolf makes the following observations—"Thus we see that the bark, the mercury, the acids, the muck, the feeding on the most famous herbs, the sweating, the *cura antiphlogistica*, are no specifics."

Dr. Fothergill concludes his relation of a case of hydrophobia in the following words—"Whilst we own our apprehensions that none of the celebrated medicines hitherto proposed to the public can safely be confided in, either as prophylactics [*preventives*] or as curatives; we would earnestly recommend one means of preservation, which not only the present instance before us, but extensive experience seems to establish upon a solid foundation; that is, after having washed the part, and cleansed the surface as quickly as possible from the poison, to enlarge the wound *immediately* by actual cautery, the knife, or any other speedy and effectual method; and to promote the discharge as long as is possible. This being effectually done, affords the *surest grounds* for a proper confidence and security against future mischief." p. 492.

And Dr. Temple says, "The most certain preventive is cutting out or destroying the part bit as soon as possible, and it may prevent the effects of a bite some days after it has happened." *Pr. Phys.*

Two circumstances we take the liberty to suggest, as deserving some attention:

The first is, in case of a bite from a mad animal, to recollect what part was bit, and, if through any, through what kind of covering. A bite through thick garments, or leather, as the teeth of the animal would then probably be wiped clean from the venom, ought to give less uneasiness than when it happens to the naked skin.

The second is, Not to kill the animals, if it can be avoided, till it is past a doubt they were mad. On both these circumstances may depend considerable satisfaction to the person bit; and it may not be improper to add, that there is abundant reason to suspect that very few of those who are bit by mad animals are liable to be affected by the hydrophobia, or other fatal effects of the bite. This, however, is not intended to abate the care that is due on these occasions, but as a proper antidote to that despondency which is often the consequence of this accident.

Dr. Tissot says, the hydrophobia may be cured in the following manner:

Bleed the patient to a considerable quantity; and repeat the operation twice, thrice, or even a fourth time, if circumstances require it.

Let the patient, if possible, be put into a warm bath; and this should be used twice a-day.

He should also, every day, receive two, or even three emollient clysters.

Rub the wound, and the parts adjoining to it with the mercurial ointment twice a-day.

The whole limb, which contains the wound, should be rubbed with oil, and be wrapped up in an oily flannel.

Let the patient take, every three hours, a dose of Cob's powder, in a cup of the infusion of lime-tree and elder-flowers. This powder is made, by rubbing together in a mortar, to a very fine powder, twenty-four grains of native, and twenty-four grains of factitious cinnabar, and sixteen grains of musk. This is, as already observed, the Tonquin medicine.

Let the following bolus be given every night, and repeated in the morning, if the patient is not easy, washing it down with the infusion mentioned above: Take one dram of Virginian snake-root in powder: of camphire and asafœtida, ten grains each; of opium, one grain; and, with a proper quantity of conserve, or rob of elder, make a bolus,

If

If there should be a great nausea at the stomach, accompanied with a bitterness in the mouth, thirty-five, or forty grains of ipecacuanha, in powder may be taken for a vomit.

If the patient takes any food, it must be light; as panado, soups made of farinaceous or mealy vegetables, &c.

Should the patient long continue weak, and subject to terrors, half a dram of the Peruvian bark may be administered to him thrice a-day.

From what has been above related, it seems evident, that if no means of prevention were used, many of those who are bit by mad animals, would never be liable to the fatal consequences of canine madness. On the other hand, it is more than probable, from divers accounts which have been published, that persons of timid and anxious dispositions, who have been bit by some animal, even without any proof of its being mad, have imagined themselves affected with every symptom of canine madness they have heard of, described their complaints as such, were treated accordingly, and cured of a disease that had no real existence.

OF THE BITE OF A VIPER.

THE grease of the viper, rubbed into the wound, is said by some to be an effectual cure for the bite; and that it is the constant practice of the catchers of these animals to perform this operation. Others assure us it is a safer method to have the wound well sucked, and afterwards rubbed with warm salad oil; and afterwards to apply a poultice of bread and milk, softened with salad oil, to the wound: and for the patient to drink freely of vinegar-whey, or water-gruel having vinegar in it, in order to make him sweat. Vinegar is an excellent medicine against any kind of poison, and ought to be taken very liberally. Should the patient happen to be sick, he may take a vomit. This course will effectually cure the bite of any poisonous animals of this country.

Many persons disapprove of the mode of sucking the wound, perhaps from the apprehension of danger resulting from drawing in the venom; without considering, as is generally understood and believed, that the poison does no injury unless it be taken into the body by a wound. He who performs the operation of sucking, ought, however, frequently to wash his mouth with salad-oil, in order to be perfectly secure from inconvenience.

The stings of poisonous insects, as the hornet, the wasp, &c. are seldom attended with much danger, unless vast numbers of them make an attack at the same time; in which case methods must be taken to abate the inflammation and swelling. To answer this purpose some apply honey, and others pounded parsley to the part; but it is a very effectual way to rub the part with salad-oil.

When poisonous insects assail a person in swarms, as bees, wasps, &c. have frequently done, the patient's life may be in danger; in this case oily poultices should be applied to the part, the patient should be bled, and have some cooling medicines administered to him, as nitre, or cream of tartar, and take plenty of diluting liquors.

Poisonous vegetables abound in this country, and are often fatal to the ignorant and unwary. Children should be early cautioned against eating any kind of fruit, roots, or berries, which are not perfectly known to them. Poisonous plants should be propagated only in proper places, and not permitted to grow where children, &c. have free access. It is a melancholy truth that many people are poisoned annually, by eating hemlock-roots instead of parsnips, or some kinds of fungus which had been unfortunately mistaken for mushrooms.

OF POISONS IN GENERAL.

OF mineral poisons, arsenic is the most common; and as the whole class of them are pretty similar both in their effects and method of cure, what is advanced concerning

concerning it will be applicable to every other species of corrosive poison.

After a person has taken arsenic, he soon experiences a burning heat, and a violent pricking pain in his stomach and bowels, with an intolerable thirst, and an inclination to vomit. The tongue and throat feel rough and dry, and if proper relief be not soon administered, the patient is seized with great anxiety, hiccuping, faintings, and coldness of the extremities. To these succeed black vomits, foetid stools, and a mortification of the stomach and intestines, which are the immediate fore-runners of death.

As soon as the symptoms appear, the patient should drink plentifully of new milk and salad-oil, or warm water mixed with oil, till he vomits. Fat unctuous broths are also proper, if they can be procured in time. The patient should continue to drink of these things as long as he perceives an inclination to vomit. Eight or ten quarts have been sometimes drank before the vomiting ceased. The patient, indeed, should not leave off drinking while one particle of the poison may be supposed to be remaining in the stomach.

But if these oily substances should not make the person vomit, two scruples of the powder of ipecacuanha should be given, or a few spoonfuls of the oxymel or vinegar of squills may be mixed with the water which he drinks. Vomiting may also be excited by tickling the inside of his throat with a feather. If these methods should fail, half a dram of white vitriol, or five or six grains of emetic tartar must be given.

If, from violent pains in the lower belly, there is reason to apprehend that the poison has got down to the intestines, clysters of milk and oil must be frequently thrown up; and the patient must drink emollient decoctions of barley, oatmeal, marshmallows, or the like. He must also take an infusion of fenna and manna, a solution of Glauber's salts, or some other purgative.

The poison being evacuated, the patient should, for some time, live upon food of a healing and cooling quality. He should also abstain from flesh, and all strong liquors, and

and confine himself to milk, broth, gruel, light puddings, and other articles of easy digestion. Barley-water, linseed-tea, or infusions of sold mild mucilaginous vegetables, should be his drink.

Vegetable poisons occasion heat and pain in the stomach, accompanied with some degree of giddiness, and sometimes a kind of stupidity. The treatment, in these cases, is the same as for the mineral or corrosive poisons.

When vegetable poisons are suffered to remain in the stomach, they often prove fatal; but the danger is generally over as soon as they are discharged. Not being of a corrosive nature, they do not wound or inflame the bowels so much as mineral substances; no time should be lost, however, in having them discharged.

Opium, as a medicine, is used both in the solid and liquid form; but in the latter form it is usually called laudanum. It is a valuable medicine when taken in proper quantity, but when taken to excess it proves a potent poison.

When it is thus taken to an excess, it general occasions great drowsiness, with stupor and other apoplectic symptoms. Sometimes the person who has taken it has so strong a propensity to sleep, that it is hardly possible to keep him awake. Every method, however, should be put in practice for that purpose, as tossing, shaking, and moving him about. Sharp blistering plasters should be applied to his legs or arms, and stimulating medicines, such as salts of hartshorn, &c. held under his nose. He should also be let blood. At the same time every endeavour should be used to make him discharge the poison, as directed above, by the use of strong vomits, drinking plenty of warm water, with oil, &c.

Besides vomits, Dr. Mead recommends acid medicines with lixivial salts; and says he has often given salt of wormwood, mixed with juice of lemon, in repeated doses, with great success.

If, after the poison is discharged, the body should remain languid and weak, nourishing diet and cordials will

will be necessary; but when any fears exist that the stomach or bowels are inflamed, great circumspection is required, as well with regard to food as medicine.

MANIA, RAVING OR FURIOUS MADNESS.

THOUGH these diseases may be considered as distinct genera, yet they are so nearly allied, and so readily change into each other, that it sufficiently justifies the treating of them both at once.

Cullen defines delirium to be "in a person awake, a false judgment, arising from perceptions of imagination, or from false recollection, and commonly producing disproportionate emotions." And the distinguishing characteristic of madness, according to Dr. Battie, is a *false perception*; and under this general character may be comprehended all kinds of what is called *madness*, from the most silly stupidity and idiotism to the most furious lunacy. The different kinds of madness are frequently changed into each other by the casual excitement of some passion: thus, an idiot may become furiously mad, by being put into a violent passion; though this does not so often happen as the change of melancholy into the raving madness, and *vice versa*.

It is surprising that mad people are not only less liable to be seized with infectious disorders than those who are in health; but even when labouring under other diseases, if the patients chance to be seized with madness, they are sometimes relieved from their former complaints. Of this kind Dr. Mead mentions two very remarkable instances.

On the other hand, it has been known, that an intermittent fever, supervening madness of long standing, has proved a cure for the madness; the senses having returned, when the fever terminated. Dr. Monro saw two instances of this himself, and mentions it as an observation of his predecessor in the care of Bethlem Hospital.

It is a remarkable circumstance, that immoderate joy, long continued, as effectually disorders the mind as anxiety

anxiety and grief: for it was observable in the well-known south-sea year, when so many immense fortunes were suddenly gained, and as suddenly lost, that more people had their heads turned from the prodigious flow of unexpected riches, than from the entire loss of the whole of their property.

Insane people, especially of the melancholic kind, sometimes obstinately persevere in doing things which must excite great pain; whence it should seem as if their minds were troubled with some distracting notions, which make them patiently bear the present distress, lest more severe tortures should be inflicted; or perhaps they may imagine, that, by thus tormenting the body, they render themselves more acceptable to the divine being, and expiate the heinous sins of which they may imagine themselves to have been guilty.

CURE. In this disease a complete ascendancy must be gained over the patient, and, when necessary, awe and fear must be established by severity. His actions must be effectually restrained, which will be best done by the strait waistcoat. He should be confined in a dark place, and kept as quiet as possible, and in as erect a position as he can conveniently bear. He must be prevented from seeing those he has been long in habits of intimacy with, or objects he has been accustomed to, and his attendants should be changed no oftener than is absolutely necessary.

All the species and degrees of madness which are hereditary, or that grow up with people from their early youth, are out of the power of physic; and so, for the most part, are all maniacal cases of more than one year's standing, let them arise from what source so ever. Very often mere waste, or the dregs of some particular disease, such as the ague, small-pox, or a nervous fever, shall occasion different degrees of idiotism or madness.

In these cases the cure must not be attempted by evacuations; but, on the contrary, by nourishing diet, clear air, moderate exercise, and the use of wine: whereas, in almost all the other maniacal cases which arise

arise from different sources, and which come on in consequence of intemperate living, violent passions, or intense thinking, it is generally held that evacuations of every kind are necessary, unless the constitution of the patient be such as absolutely forbids them.

Blood is most conveniently drawn either from the arm or jugulars; and if the weakness be such as renders it improper to take away much blood, cupping-glasses may be applied to the occiput. When the disease has continued long, bleeding will do no service, and therefore should not be advised.

Vomiting, in weakly people, must be excited by the *vinum ipecacuanhæ*; but, in the more robust, by emetic tartar, or antimonial wine: the most efficacious purgatives are the infusion or tincture of black hellebore; or infusion of senna, quickened with tincture of jalap; but if there be suppression of the menses, or hæmorrhoidal discharge, then aloetic purges will be more proper. Mad people, in general, require very large doses, both of the vomits and purges, before any considerable operation ensues.

We are assured, by Dr. Munro, that the evacuation by vomiting is infinitely preferable to any other; the prodigious quantity of phlegm, with which the patients in this disease abound, is not, he says, to be got the better of but by repeated vomits; and he observes that the purges have not their right effect, or do not operate to so good purpose, until the phlegm is broken and attenuated by frequent emetics. He mentions the case of a gentleman who had laboured under a melancholy for three years, from which he was relieved entirely by the use of vomits, and a proper regimen.

Increasing the discharge by urine, is also of the greatest moment, especially when any degree of fever is present. The cutaneous discharges are also to be promoted, for which purpose the hot bath is of the greatest service in maniacal cases. Hoffman asserts that he has seen numerous instances, both of inveterate melancholy and raging madness, happily cured by means of warm bathing; bleeding and nitrous medicines having

been premised. Camphor has also been highly commended, and De Berger says he has found the best effects from it; but if we believe Dr. Locker of Vienna, it is not entitled to any encomium.

Immersion and retention in cold water have sometimes removed mania; the patient must be thrown in by surprise, and kept in for some time. Snow, ice, or other cold substances, may be applied to the head, which ought always to be shaved in the beginning.

Though blistering the head has generally been directed, Dr. Mead says he has oftener found it do injury than service. And Dr. Temple says, blistering has not been found to do much service, except when used at the first attack. Dr. Mead recommends issues in the back, and says the head should always be kept close shaved, and washed from time to time with warm vinegar. Opium is usually forbidden in maniacal cases, as supposing that it always increases the disturbance; but there are instances where large doses of this medicine have been found to prove a cure, and perhaps if it were tried oftener, we should find powerful effects from it: there cannot much harm ensue from a few doses, which may be immediately disused if they should be found to exasperate the disease.

Reason and experience shew the necessity of confining such as are deprived of their senses; and no small share of the management consists in preventing them from hurting themselves, or from doing mischief to others. It has sometimes been usual to chain and beat them: but this is both cruel and absurd; since the contrivance called the strait waistcoat answers every purpose of restraining the patients, without hurting them.

It is necessary to bear in mind that all mad people are cowardly, and can be awed even by the menacing look of a very expressive countenance; and when those who have charge of them once impress them with the notion of fear, they readily submit to any thing that is required. The physician, however, should never deceive them in any thing, but more especially with regard

to their distemper; for as they are generally conscious of it themselves, they acquire a kind of reverence for those who know it; and by letting them see that he is thoroughly acquainted with their complaint, he may very often gain such an ascendancy over them that they will readily follow his directions.

It is more difficult to manage those whose madness is accompanied either with excessive joy, or with great dejection and despondency, than those who are agitated with rage: and all that can be done is to endeavour to excite contrary ideas, by repressing the immoderate fits of laughter in the one kind by chiding or threatening; and dispelling the gloomy thoughts in the other, by introducing pleasing concerts of music, or any other species of entertainment which the patients have been known to delight in while they had the use of reason. But in order to repress the immoderate fits of joy, though chiding and threatening may be used, care should be taken not absolutely to terrify them, which can never be done without danger, and has often added misery to the unhappy sufferer.

The diet of maniacal patients should be perfectly light and thin; and their meals should be moderate: but they never should be suffered to live too low, especially while they are under a course of physic. They should be obliged to observe great regularity in their hours: even their amusements should be such as are best suited to their disposition; and, after the disease appears to be subdued, chalybeate waters and the cold bath will be highly proper, to strengthen their whole frame, and secure them against a relapse.

OF RESTORING APPARENTLY DROWNED PERSONS, &c.

IN some respects there seems to be a very great similitude between the death occasioned by immersion in water, and that by strangulation, suffocation by fixed air, apoplexies, epilepsies, sudden faintings, violent shocks of electricity, or even violent falls and bruises. Physicians, however are not agreed with regard to the

nature of the injury done to the animal system in any or all of these accidents. It is indeed certain, that in all the cases above-mentioned, particularly in drowning, there is very often such a suspension of the vital powers as to us hath the appearance of a total extinction of them; while yet they may be again set in motion, and the person restored to life, after a much longer submersion, or lying under water, than hath been generally thought capable of producing absolute death.

Dr. Cullen, in his letter to lord Cathcart, concerning the recovery of persons drowned and seemingly dead, tell us, that, "From the dissection of drowned men, and other animals, it is known, that very often the water does not enter into the cavity of the lungs, nor even into the stomach, in any quantity to do hurt to the system; and in general, it is known, that in most cases, no hurt is done to the organisation of the vital parts. It is therefore probable, that the death which ensues, or seems to ensue, in drowned persons, is owing to the stoppage of respiration, or breathing, and to the ceasing, in consequence, of the circulation of the blood, whereby the body loses its heat, and with that the cavity of the vital principle."

In the Philosophical Transactions, Vol. 66, Mr. Hunter gives the following theory. The loss of motion, in drowning, seems to arise from the loss of respiration; and the immediate effect this has upon the other vital motions of the animal, at least this privation of breathing, appears to be the first cause of the heart's motion ceasing.

The following abstract of the plan of the society in London, called the Humane Society, and the method of treatment recommended by it, will not, we apprehend, be unacceptable to our readers. This society has undertaken to publish, in as extensive a manner as possible, the proper methods of treating persons in the unfortunate circumstances to which they extend their relief; to distribute a premium of *two guineas* among the first persons, not exceeding four in number, who attempt to recover any person, taken out of the water
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for dead, within thirty miles of the cities of London and Westminster, provided they have not been longer than two hours under the water, and provided the assistants persevere in the use of the means recommended for the space of two hours, whether their attempts are successful or not.

These rewards are also to include every other instance of sudden death, whether by suffocation from noxious vapours, hanging, syncopies, freezing, &c. They propose to distribute, in like manner, *four guineas* wherever the patient has been restored to life; to give to any publican, or other person, who shall admit the body into his house without delay, and furnish the necessary accommodations, the sum of *one guinea*, and to secure them from the charge of burial in unsuccessful cases; and to present an honorary medal to those medical gentlemen, or others, who give their assistance gratis, and who are provided with a fumigator, and other necessaries always in readiness, in all those cases in which they may prove instrumental to success.

The following is the method of treatment recommended by the society:

1. In removing the body to a convenient place, great care must be taken that it be not bruised, nor shaken violently, nor roughly handled, nor carried over the shoulders with the head hanging downwards, nor rolled upon the ground, or over a barrel, nor lifted up by the heels. For experience proves that all these methods are injurious, and often destroy the small remains of life. The unfortunate object should be cautiously conveyed by two or more persons, or in a carriage upon straw; lying as on a bed, with the head a little raised, and kept in as easy and natural a position as possible.

2. The body being well dried with a cloth should be placed in a moderate degree of heat, but not too near a large fire. The windows or doors of the room should be left open, and no more persons be admitted into it than those which are absolutely necessary; as the life of the patient greatly depends upon having the benefit of a pure air. The warmth most promising of
success

success is that of a bed or blanket properly warmed. Bottles of hot water should be laid at the bottoms of the feet, in the joints of the knees, and under the arm-pits; and a warming-pan, moderately heated, or hot bricks wrapped in cloth, should be rubbed over the body, and particularly along the back. The natural and kindly warmth of a healthy person lying by the side of the body, has been found, in many cases, very efficacious. The shirt or clothes of an attendant, or the skin of a sheep fresh killed, may also be used with advantage. Should these accidents happen in the neighbourhood of a warm bath, brewhouse, baker, glass-house, saltern, soap-boiler, or any fabric where warm lees, ashes, embers, grains, sand, water, &c. are easily procured, it would be of the utmost service to place the body in any of these, moderated to a degree of heat but very little exceeding that of a healthy person.

3. The subject being placed in one or other of these advantageous circumstances as speedily as possible, various stimulating methods should next be employed. The most efficacious are, to blow with force into the lungs, by applying the mouth to that of the patient, closing his nostrils with one hand, and gently expelling the air again by pressing the chest with the other, imitating the strong breathing of a healthy person. The medium of a handkerchief or cloth, may be used, to render the operation less indelicate. If the lungs cannot be inflated in this manner, it may be attempted by blowing through one of the nostrils, and at the same time keeping the other close. Dr. Monro, for this purpose, recommends a wooden pipe, fitted at one end for filling the nostril, and at the other for being blown into by a person's mouth, or for receiving the pipe of a pair of bellows, to be employed for the same purpose if necessary. Whilst one assistant is constantly employed in this operation, another should throw the smoke of tobacco up by the fundament into the bowels, by means of a pipe, or fumigator, such as are used in administering clysters; or by a pair of bellows till the other instrument

instrument can be procured. A third attendant should, in the mean time, rub the belly, chest, back, and arms, with a coarse cloth, or flannel, dipped in brandy, rum, or gin, or with dry salt, so as not to rub off the skin; spirits of hartshorn, volatile salts, or any other stimulating substance, must also be applied to the nostrils, and rubbed upon the temples very frequently. Electrical shocks made to pass in different directions through the body, and particularly through the heart and lungs, have been recommended as very powerful stimuli; and from the trials that have already been made, promise considerable success. The body should, at intervals, be also shaken, and varied in its position.

4. If there be any signs of returning life, such as sighing, gasping, twitching, or any convulsive motions, beating of the heart, the return of the natural colour and warmth, opening a vein in the arm or neck may prove beneficial; but the quantity of blood taken away should not be large; nor should an artery ever be opened, as profuse bleeding has appeared prejudicial, and even destructive to the small remains of life. The throat should be tickled with a feather, in order to excite a propensity to vomit; and the nostrils also with a feather, snuff, or any other stimulant, so as to provoke sneezings. A tea-spoonful of warm water may be occasionally administered, in order to learn whether the power of swallowing be returned; and if it be, a table-spoonful of warm wine, or brandy and water, may be given with advantage; but not before, as the liquor may get into the lungs before the power of swallowing returns. The other methods should be continued with vigour until the patient be gradually restored.

When the patient has been but a short time senseless, blowing into the lungs or bowels has been, in some cases, found sufficient; yet a speedy recovery is not to be expected in general. On the contrary, the above methods are to be continued with spirit for two hours, or upwards, though there should not be the least symptoms of returning life. The same means of restoration
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are applicable to the various other cases of sudden death, recited in the beginning of this article.

When these measures prove unsuccessful, the surgeon's last resource is *Bronchotomy*, or opening the *arteria trachæa*; for perhaps the air entering freely into the lungs, through the aperture made in the canal, through which they received it in their natural state, will restore the play of the lungs, and all the motions of the breast.

Mr. Hunter observes, that the restoration of breathing is all that is necessary to restore the heart's motion; for if a sufficiency of life still remains to produce that effect, we may suppose every part equally ready to move, the very instant in which the action of the heart takes place, their actions depending so much upon it.

What makes it very probable, that the principal effect depends upon throwing air into the lungs, is, that children in the birth, when too much time has been spent after the loss of that life, which is peculiar to the foetus, lose altogether the disposition for the new life. In such cases there is a total suspension of the actions of life; the child remains to all appearance dead; and would die, if air was not thrown into its lungs, and the first principle of action by that means restored.

To put this in a clearer light, Mr. Hunter gives the result of some experiments made on a dog in 1775. A pair of double bellows were provided, which were so constructed, that, by one action, air was thrown into the lungs, and by the other the air was sucked out which had been thrown in by the former, without mixing them together. The muzzle of these bellows was fixed into the trachæa of a dog, and by working them he was kept perfectly alive. While this artificial breathing was going on, the sternum was taken off, so that the heart and lungs were exposed to view. The heart then continued to work as before, only the frequency of its action was greatly increased. Mr. Hunter then stopped the motion of the bellows; and observed, that the contraction of the heart became gradually weaker and less frequent, till it left off moving altogether; but
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by renewing the operation, the motion of the heart also revived, and soon became strong, and as frequent as before. This process was repeated upon the same dog ten times; sometimes stopping for five, eight, or ten minutes. Mr. Hunter observed, that every time he left off working the bellows, the heart became extremely turgid with blood, and the blood in the left side became as dark as that in the right, which was not the case when the bellows were working. These situations of the animal, he observes, seem to be exactly similar to drowning.

In cases of *apparent death* from intense cold, it is very proper to rub the body with snow, ice, or cold water, in imitation of the inhabitants of the cold countries, who, when any part of the body is frost-bitten, immediately thaw it by rubbing it with snow; and very gradually expose it to the influence of a warmer temperature, well knowing that by a sudden approach to the fire, the frozen part would soon be entirely destroyed. If, after some time, there should be no appearance of life, the restoring process for the drowned must be employed.

If apparent death is the consequence of suspension by a cord, *viz.* hanging, a few ounces of blood may be taken from the jugular vein, cupping-glasses should be applied to the head and neck, and leeches to the temples. With respect to the other methods of treatment, the same should be pursued as those recommended for the apparently drowned.

It is certain, that within these few years great numbers of apparently drowned, &c. persons have been restored to life, by a proper use of the remedies here enumerated; and societies for the recovery of drowned persons, &c. have been instituted in different places. The first society of this kind was instituted in Holland, where, from the great abundance of canals and inland seas, the inhabitants are particularly exposed to accidents by water. The laudable and humane example of the Dutch was followed, in the year 1768, by the magistrates of health

in Milan and Venice; afterwards by the inhabitants of Hamburgh in 1771; by those of Paris in 1772; and by the magistrates of London in 1774.

We shall conclude this article with the remarks of the Editor of the Reports of the Humane Society, —

“ What an exalted transport must it afford every com-
 “ passionate breast, to be instrumental in recalling our
 “ helpless fellow-creatures from apparent death; to
 “ witness the heart-felt passions of anguish and despair,
 “ of hope, surprise, and joy, which alternately agitate
 “ the human frame; to mark the lively *traits* of grati-
 “ tude, painted in the countenances of the mother,
 “ sisters, brothers, &c. of the restored object! What
 “ epicure could ever yet boast so refined, so exquisite a
 “ luxury, as the benevolent deliverer from such a scene;
 “ a scene far beyond what any pen has yet been able to
 “ describe, or pencil to express!”

APPARENT DEATH FROM LONG FASTING.

WHEN from *long fasting* the vital powers seem to be nearly exhausted, the supply of food should be made in the *most gradual* and cautious manner. Weak broths, barely warm, should be first given, and in very small quantities at a time; and afterwards gruel, milk porridge, milk with the addition of an egg, wine-whey, &c. may constitute the nourishment with which, by the gentlest gradations, will completely restore the patient.

On this subject it may be necessary to enlarge. In our attempts to recover those who have suffered under the calamities of famine, great circumspection is required. Warmth, cordials, and food, are the means to be employed; and it is evident that these may prove too powerful in their operation, if not administered with caution and judgment. For the body, by long fasting, is reduced to a state of more than infantile debility; the minuter vessels of the brain, and of the other organs, collapse, or close up, for want of fluids to distend them; the stomach and intestines shrink in their capacity; and the heart languidly vibrates, having scarcely sufficient energy to propel, or push forward, the scanty current of blood.

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Under such circumstances, a proper application of heat seems an essential measure, and may be effected by placing a healthy man on each side, and close to the patient. Fomentations may also be used with advantage. The temperature of these should be lower than that of the human body, and gradually increased according to the effects of their stimulus. New milk, weak broth, or water-gruel, should be employed for the one and the other; as nutriment may be conveyed into the system this way, by passages probably the most pervious in a state of fasting, if not too long protracted. "A lad at Newmarket a few years ago, having been almost starved, in order that he might be reduced to a proper weight for riding a match, was weighed at nine o'clock in the morning, and again at ten; and he was found to have gained near thirty ounces in weight in the course of an hour, though he had only drunk half a glass of wine in the interval. The wine probably stimulated the action of the nervous system, and incited nature, exhausted by abstinence, to open the absorbent pores of the whole body, in order to suck in some nourishment from the air."

But no such absorption as this can be expected in a state of extreme weakness and emaciation gradually induced; because the lymphatics must partake of the general want of tone and energy. And notwithstanding the salutary effects of wine in the case of the jockey, who perhaps had been reduced by sweating, as well as by abstinence, such a stimulus might prove dangerous, and even fatal, in other cases.

It appears safer, therefore, to advise the exhibition of cordials in very small doses, and at first considerably diluted. Slender wine-whey will perhaps best answer this purpose; and afford, at the same time, an easy and pleasant nourishment. When the stomach has been a little strengthened, an egg may be mixed with the whey, or administered under some other agreeable form. The yolk of one was, to Cornaro, sufficient for a meal; and the narrative of this noble Venetian, in whom a fever was excited by the addition of only two ounces of food

to his daily allowance, shews that the return to a full diet should be conducted with great caution, and by very slow gradations.

In famine, life may be protracted with less pain and misery, by a moderate allowance of water. For the acrimony and putrefaction of the humours are obviated by such dilution, the small vessels are kept permeable and open, and the lungs are furnished with that moisture which is essential to the performance of their functions. Fontanus, a writer of respectable authority, relates the history of a woman who obstinately refused to take any sustenance, except twice, during the space of fifty days, at the end of which period she died. But he adds, that she used water by way of drink, though in small quantity. Redi, who made many experiments to ascertain the effects of fasting on fowls, observed, that none were able to support life beyond the ninth day, to whom drink was denied; whereas, one indulged with water lived more than twenty days.

Hippocrates informs us, that children are more affected by abstinence than those arrived at adolescence; these than those of the middle age; and the middle-aged more than old persons. The power of enduring famine must, however, depend upon the state of the health and strength, as well as upon the age of the sufferer. There are also particular constitutions which do not endure much pain from the calls of hunger.

But though a few examples of this kind may be adduced, we have the evidence of numerous melancholy facts to shew, that the pressure of want is agonizing to the human frame. "I have talked," says an ingenious writer, "with the captain of a ship, who was one of
"fix that endured it in extremity, and who was the
"only person that had not lost his senses when they received accidental relief. He assured me that his pains
"were so great, that he was often tempted to eat a part
"of one of the men who died, and which the rest of his
"crew actually for some time lived upon. He said that,
"during the continuance of this paroxysm, he found his
"pains insupportable; and was desirous, at one time,
of

“ of anticipating that death which he thought inevitable;
“ but his pains, he said, gradually decreased after the
“ sixth day (for they had water in the ship which kept
“ them alive so long) and then he was in a state rather
“ of languor than desire, nor did he much wish for food,
“ except when he saw others eating; and that for a
“ while revived his appetite, though with diminished
“ importunity. The latter part of the time, when his
“ health was almost destroyed, a thousand strange
“ images rose upon his mind, and every one of his senses
“ began to bring him wrong information. The most
“ fragrant perfumes appeared to him to have a fetid
“ smell; and every thing he looked at, took a greenish
“ hue, and sometimes a yellow.”

Tobacco, by its narcotic, or stupifying quality, seems well adapted to counteract the uneasy impressions which the gastric juice makes on the nerves of the stomach when it is empty; and the combination of testaceous powders with it may tend to correct the secretion that is supposed to be the chief agent in digestion, and which, if not acid, is always united with acidity. It is certain, however, that their operation is both grateful and salutary; for we find the luxurious inhabitants of the East-Indies mix them with the betsel nut, to the chewing of which they are universally and immoderately addicted. Perhaps such absorbents may be usefully applied, both to divide the doses, and to moderate the virulence of the tobacco; for in the internal exhibition of this plant, much caution is required, as it produces sickness, vertigo, cold clammy sweats, and a train of other formidable symptoms, when taken in too large a quantity.

Having so long dwelt upon the subject of hunger and fasting, a few observations upon thirst may naturally be expected to follow. Animal fat is singularly powerful in assuaging the most acute sensations of thirst, as appears from the narrative of the sufferings experienced by those who were confined in the Black hole at Calcutta. A hundred and forty-six persons, exhausted by fatigue and military duty, were there thrust together into a chamber of eighteen cubic feet, having only two windows

dows strongly barred with iron, from which in a close sultry night, and in such a climate as that of Bengal, little or no circulation of fresh air could be enjoyed.

In a few minutes, these unhappy wretches fell into so profuse a perspiration, that an idea can hardly be formed of it; and this was succeeded by a raging thirst, which increased in proportion as the body was drained of its moisture. "Water! water!" became the universal cry; and an old soldier on the outside, through it, furnished them with a few skinfuls of it.

But these scanty supplies, like sprinkling on the fire, served only to feed and increase the flame. From this experience of its effects, Mr. Holwell, their chief, determined to drink no more; and kept his mouth moist by sucking the perspiration out of his shirt-sleeves, and catching the drops as they fell from his head and face. "You cannot imagine," said he, "how unhappy I was "if any of them escaped me."

He came into the prison without his coat, the season being too hot for him to bear it: and one of his miserable companions, observing the expedient he had hit upon of allaying his thirst, robbed him from time to time of a considerable part of his store. The plunderer, whom he found to be a young gentleman in the service of the East India company, afterwards acknowledged, that he owed his life to the many comfortable draughts which he derived from him.

Before Mr. Holwell adopted this mode of relief, he had attempted, in an ungovernable fit of thirst, to drink his own urine; but it was so extremely bitter, that a second taste could not be endured; but, on the contrary, he declared, that no Bristol water could be more pleasant than his perspiration. And this, we may presume, consisted chiefly of animal fat, melted by excessive heat, and exuding from the cellular membrane through the pores of the skin.

Persons who have been accustomed to animal food, are soon reduced when supplied only with farinaceous or meally food. Several years ago, to determine the comparative nutritive powers of different substances, an ingenious

ingenious young physician, as Dr. Percival informs us, made a variety of experiments on himself, to which he unfortunately fell a sacrifice. He lived a month upon bread and water; and under this regimen of diet, he every day diminished much in his weight.

But, in 1784, a student of physic, at Edinburgh, confined himself for a longer space of time, to a pint of milk, and half a pound of white bread daily; and he declared that he passed through the usual labours of study and exercise, without feeling any decay of health or strength, and without any sensible loss of bulk. The cutaneous, urinary, and alvine excretions were very scanty during the whole period, and the discharge of fæces occurred only once in a week. In this case the oily and coagulable parts of the milk perhaps furnished a larger proportion of aliment, and at the same time contributed to check the waste by perspiration and other discharges, for oleaginous substances are retained long in the body by their viscosity.

Dr. Ruffel, in his natural history of Aleppo, relates, that in those seasons when oil abounds, the inhabitants, by indulgence in it, are disposed to fever, and affected with infarctions, or fulness of the lungs; maladies which indicate both retention and obstruction. Milk has been suspected, by some, of producing similar effects, though in a slighter degree; and the free use of it has been, on this account, forbidden to asthmatics.

OF NOXIOUS VAPOURS.

AIR, by various means, frequently becomes noxious and destructive to animals. Hence the danger of sleeping in small apartments where there is burning charcoal, which frequently proves fatal. It is, indeed, imprudent to sleep in a small apartment with a fire of any kind.

Descending into a cellar where large quantities of wine, cyder, beer, or other liquors are repositied, particularly if in a state of fermentation, is attended with great danger, especially if they have been long shut up.

Instances

Instances may be adduced of persons losing their lives in such places, and of others who have narrowly escaped.

Persons who venture into a well, pit, cellar, or any damp place that has been long shut up, should first be extremely careful that the air has been sufficiently purified, by burning gun-powder in it. It may be easily known when the air of such places is unwholesome, by letting down a lighted candle, throwing in burning fuel, &c. If these continue to burn, people may venture in without danger; but where they are suddenly extinguished, no person should presume to enter till the air has first been purified by fire.

Those who apprehend danger in these situations, and make a seasonable retreat, usually obtain relief as soon as they get into the open air; or if they are not perfectly satisfied that they have wholly escaped the noxious effluvia, a little water and vinegar, or lemonade, drank hot, affords relief.

But when the patient is so far poisoned, that he has lost his feeling and understanding, he should be exposed to a very pure, fresh, and open air; and volatile salts, or other stimulating substances, should be held to his nose. He should then be bled in the arm, or if that does not succeed, in the neck. His legs should also be put into warm water, and well rubbed: when he is able to swallow, give him some lemonade, or water and vinegar, to which may be added a little nitre.

Sharp clysters are not to be neglected in this case; which may be made, by adding to the common clyster two ounces of syrup of buckthorn, and the same quantity of tincture of fenna; or half an ounce of Venice turpentine, dissolved in the yolk of an egg. If the body feels cold, employ gradual warmth, and pursue the means of restoring circulation, &c. as directed in the case of apparently drowned persons.

Cold water should be repeatedly thrown upon the patient's face; or he may be plunged in cold water. Dr. Frewen mentions the case of a young man who had been stupified

stupified by the noxious smoke of sea-coal, but recovered by being immersed in warm water, and afterwards laid in a warm bed.

“ When arsenic, sublimate, aqua-fortis, or any substance known to be of an acid nature, is taken by any one, ignorant of the dreadful torments they occasion, for the horrid purpose of destruction, your endeavours must be aimed at correcting its nature, and washing it away. The first intention will be accomplished by getting down any of the following substances; ley of wood ashes, mixed with water to that degree, as upon tasting, will appear may be swallowed without injury; chalk, magnesia, particularly where arsenic or sublimate has been taken, a solution of what is termed liver of sulphur, which may be had from the chemists. The second intention may be fulfilled by copiously drinking of warm milk, or, until this can be obtained, of warm water.” *Vill. Fr.*

CORPULENCY.

IN a healthy state, the fat, or animal oil, is not permitted to diffuse itself throughout the cellular interstices at large, but is confined to the place where such an oily fluid is necessary, by a particular apparatus of distinct vesicles. But in many constitutions the oily part of the blood appears to exceed the requisite proportion, and easily separates from the other constituent parts; and then it is apt to accumulate in such quantities, that we may suppose it to burst those vesicles which were originally destined to hinder it from spreading too far.

The increase of the omentum particularly, and the accumulation of fat about the kidneys and mesentery, swell the abdomen, and obstruct the motions of the diaphragm; whence arises one reason of the difficulty of breathing, which is peculiar to corpulent people; while the heart, and the large vessels connected with it, are in like manner so incumbered, that neither the systaltic nor subsultory motion can be performed with sufficient freedom, whence weakness and slowness of the pulse: but when the whole habit is in a manner overwhelmed with

an oily fluid, the enlargement of the cellular interstices will necessarily interrupt the general distribution and circulation throughout the nervous and vascular systems; impeding the action of the muscular fibres, and producing insensibility, somnolency, and death.

These cases are the more deplorable, as there is but little prospect of a cure. For the animal oil is of too gross a nature to be easily taken up by absorption; and when fluids are accumulated in the cellular system, there are only two ways in which they can be carried off; namely, by the absorbents, which take their rise from the cellular interstices; and through the pores of the skin by transudation, or sweat.

It is an additional misfortune, that this disease steals on so imperceptibly, that it becomes inveterate by the time that people begin to think of pursuing the proper means of relief.

Soap has been recommended to melt down and facilitate the absorption of the fat in corpulent people; and Dr. Fleming, some years ago, published a treatise, wherein he recommends this medicine, and relates the case of a gentleman who is said to have received considerable benefit from it. But perhaps the soap-lees would be more powerful, and might be more easily taken; but this last-mentioned remedy must be properly sheathed.

Lieutand advises to take *acetum scilliticum*, in small doses, with frequent purging and brisk exercise. And Dr. Temple says, that extraordinary fatness, or corpulency, may be reduced with acids, but they should not be taken in large quantities. He adds, that camphor is said to have the power of removing obesity, or corpulency.

But Dr. Fothergill observes, that a strict adherence to a vegetable diet reduces exuberant fat more certainly than any other means that he knows of; and gives two cases wherein this regimen succeeded remarkably well. The celebrated Dr. Cheyne thus brought himself down, from a most unwieldy bulk to a reasonable weight, as he himself informs us:

But

But it will seldom happen that the patients will be found sufficiently steady to persist in any of these courses, it being the nature of the disorder to render them irresolute and inattentive to their condition. Therefore the principal use of rules must be with a view to prevention; and persons who are disposed to corpulency, should take care in time to prevent it from becoming an absolute disease, by using a great deal of exercise, not indulging in sleep, and abridging their meals, especially that of supper. Salted meats are less fattening than such as are fresh; and drinking freely of coffee is recommended to corpulent people.

The means recommended should be used as soon as the disposition to fatness is perceived; for when it has taken place to a considerable degree, they will be with difficulty put in practice.

OF EVACUATION BY STOOL.

TO preserve health, the body should be kept regular. If the fæces lie too long in the bowels, they vitiate the humours; and when they are too soon discharged, the body does not receive sufficient nourishment; a medium therefore is desirable. Those who eat various kinds of food, eat and drink at irregular hours, and swallow several different liquors at every meal, cannot suppose that their digestion will be good, or their discharges regular.

Irregularity in eating and drinking occasions much inconvenience, whether by taking too much or too little; a looseness is frequently the consequence of the former, and costiveness of the latter. One stool a day is generally allowed to be sufficient for an adult in health, and less is supposed to be injurious. But there are many exceptions to this rule, for many persons, even in good health, have not made that salutary discharge more than once or twice a week.

To procure a regular daily stool, early rising, and going into the open air is required. The posture, as well as the warmth, in bed, has an opposite tendency. Perspiration, in particular, lessens the other discharges.

Having recourse to medicines for preventing costiveness, greatly hurts the constitution. A frequent repetition of purges for that purpose, gradually weaken the bowels and hurt digestion, till at length a continuance of them is found necessary. Diet, not drugs, will be found most effectual in removing costiveness. The patient should go thinly clothed, and avoid whatever is of an astringent or heating nature.

Those who are troubled with an habitual looseness, should also adapt their diet to the nature of their complaint. They should take food which braces and strengthens the bowels, and is somewhat astringent; as fine wheat bread, eggs, cheese, rice boiled in milk, &c. Their principal drink should be red port, claret, brandy and water, with toasted bread, &c. As an habitual looseness is frequently owing to an obstructed perspiration, the patient should be careful to keep his feet warm, wear flannel next his skin, and pursue such methods as may be thought to tend to the promotion of the perspiration.

OF BLEEDING.

BLEEDING is an operation in surgery, performed by a lancet, by which a vein is opened for the evacuation of corrupt or redundant blood. Some physicians extol bleeding as the surest and most efficacious species of evacuants. Yet it was very rare among the ancients, however frequent among the moderns.

The hippopotamus is said to have first taught men the use of bleeding; for that animal, being over-charged with blood, rubs itself against a pointed bulrush, and opens a vein; till, finding its plenitude discharged, it welters in the mire, to prevent any further effusion.

Bleeding, says Dr. Pringle, is the most indispensable of all remedies in inflammatory diseases; to the delaying of which too long, or not repeating it, are chiefly owing the bad consequences of colds, as dangerous fevers, rheumatisms, and consumptions. He observes further that, in general, young practitioners are apt to be too sparing in letting blood, by which means many
lives

lives are lost: for a surgeon may be assured a soldier will never complain of a cough, or pains with inflammatory symptoms, wherein bleeding is not necessary; and from the siness of the blood, and continuance of the complaints, he is to judge of the necessity of repeating it, which, in case of a stitch, or difficult breathing, is never to be delayed. In inflammatory cases, from twelve to fifteen ounces may be taken for the first bleeding, and somewhat less for all the rest; and when it is necessary to exceed this quantity, it may be proper to follow Celsus's rule, in minding the colour of the blood while it flows, and when it is of a blackish cast, which is always the case in difficult breathing and great inflammations, to let it run till it becomes more florid. In all cases, where plentiful bleeding is indicated, it is best to do it in bed, to prevent fainting; and we may observe, that a person will bear the loss of a much greater quantity of blood if the stream is small, than by a large orifice, which some have thought necessary for making a speedy revulsion.

Bleeding is highly necessary in the phrenitis, ophthalmia, quinsey, rheumatism, cough, hectic fits, and, in general, in all inflammatory cases. See *Pringle's Observation on the Diseases of the Army*.

It is proper to observe, however, that in malignant and putrid disorders, bleeding frequently renders them more malignant; it is therefore to be omitted, or at least not repeated, unless there appear evident marks of inflammation.

After falls, blows, bruises, or any violent hurt received externally or internally, bleeding is necessary. It is also necessary for those who have been strangled, drowned, suffocated with foul air, &c. In general, whenever the vital motions have been suddenly stopped from any cause, except in swoonings occasioned by mere weakness, or hysteric affections, bleeding will be necessary. But in those disorders which proceed from a relaxation of the solids, and an impoverished state of the blood, as dropsies, &c. bleeding is improper.

Bleeding

Bleeding for topical inflammations should be performed as near the part affected as possible; and where the operation can be performed with a lancet, that method is to be preferred. If a vein cannot be found, recourse must be had to leeches or cupping.

For the following observations on the method of applying leeches, we are indebted to an ingenious modern writer whom we have often quoted. "Leeches may be employed in every case where topical bleedings are thought necessary, or where venesection cannot be performed.

"As these little animals are depended on for the removal of very dangerous diseases, and as they often seem capriciously determined to resist the endeavours made to cause them to adhere, I shall give a few directions, by which their assistance may, with more certainty, be obtained.

"This useful ally to the physician, it may be remarked, is as little fond of the taste of physic as the physician can be himself. The introducing a hand, to which any ill-flavoured medicines adheres, into the water in which they are kept, will be often sufficient to deprive them of life; the application of a small quantity of any saline matter to their skin, immediately occasions the expulsion of the contents of their stomach; and, what is most to our present purpose, the least flavour of any medicament that has been applied remaining on the skin, or even the accumulation of the matter of perspiration, will prevent them from fastening. The skin should therefore, previous to their application, be very carefully cleansed from any foulness, and moistened with a little milk.

"The best mode of applying them is by retaining them to the skin in a small wine glass, or the bottom of a large pill-box, when they will, in general, in a little time, fasten themselves on the skin. On their removal, the rejection of the blood they have drawn may be obtained by the application of salt externally; but here, for the sake of those to whom we are so much indebted, I shall remark, that a few grains of
"salt

“ salt are sufficient for this purpose ; and that covering
“ them with it, as is sometimes done, generally de-
“ stroys them. It sometimes happens, that the blood
“ will continue to flow from the orifice made by a leech
“ longer than is desirable ; and sometimes children have
“ been nearly lost from the inability of the attendants
“ to suppress the discharge. A few words, therefore,
“ descriptive of the method in which this should be
“ done, cannot but be useful. The blood should be
“ washed off clean, and the point of the finger pressed
“ moderately hard on the orifice, when the blood will
“ cease to flow. A small compress may then be applied
“ to the wound, which may be retained by the point
“ of the finger, as long as the blood appears upon
“ withdrawing the pressure. Remembering that no
“ more blood be suffered to flow than is thought neces-
“ sary ; since all that is required to prevent it, is pati-
“ ently to persevere in the necessary pressure.”

With regard to the quantity of blood to be drawn from the patient, that must be regulated by his strength, age, constitution, manner of living, and other circumstances. Different surgeons open the vein in three different directions. Some make the orifice with the lancet in a straight line with the course of the vein ; others transversely ; but most of them make it obliquely ; and if the patient is to be bled in the left arm, the surgeon should be able to use his left hand, instead of his right.

Without dwelling on the particulars of this operation, let it be observed that, when a sufficient quantity of blood is discharged, the ligature must be immediately taken off, and the skin about the orifice gently stroked or pressed together by the two fore-fingers of the left hand ; by which means the lips of the divided vein are closed : then the smaller of the two compresses is to be applied, first discharging what little blood there may be between the orifice and the vein ; the larger compress should then be laid on the smaller, and pressed slightly down with the thumb ; then, wiping the blood from the arm, the bandage is to be applied. Some

wet the compresses in vinegar, water, or spirit of wine; but it is not necessary, as they sit easiest when applied dry.

In bleeding it sometimes happens that an artery is opened, either instead of, or, together with, the vein: an accident of this kind is attended with the utmost danger. An artery is known to be wounded, when the blood spins out very forcibly from the orifice, and that by starts or leaps, not in an even stream, and extends itself in a greater arch from the orifice to the basin. The colour of the blood from an artery is also much more florid than from a vein; to which, add, that, on pressing the finger on the vessel below the orifice, the blood starts out more violently than before; and stops, or at least abates, on pressing above the orifice; quite the contrary of what happens on the opening of a vein.

Persons unacquainted with anatomy should never bleed in a vein that lies over an artery, if they can avoid it, lest an accident should happen. A vein may be easily distinguished from an artery by its beating, and an artery from a vein from its feeling hard and tight under the finger, like a whipcord.

In all cases where topical bleeding is not required, and where the intention is only to lessen the general mass of blood, the arm is recommended as the most commodious part of the body in which the operation can be performed.

OF THE MUCUS, SALIVA, AND PANCREATIC JUICE.

THE mucus covers the surfaces of the membranes that are exposed to any extraneous matter, such as the skin and internal membrane of the mouth, nose, lungs, stomach, intestines, urinary passages, &c. It is a fluid of an adhesive viscosity, approaching to a solid, and of greater viscosity in one part of the body than in another. It is a compound of mucilage and water. It is more or less viscid, according to the quantity of water with which it is combined.

It

It will not combine with more water than what is already contained in it; neither can its viscosity be altered by digesting it with water, unless it begin to putrefy; nor can the more viscid mucus of one part be converted into the less viscid of another.

If the water be evaporated from it by a gentle heat, the mucilage remains solid; if this be immersed in water, it will absorb that quantity which evaporated from it, but no more, and it will regain its former fluidity and viscosity. It, for the most part, contains either no neutral salts, or so small a proportion as cannot easily be rendered sensible to experiment. It is colourless, insipid, inodorous, and incapable of stimulating.

It combines with concentrated vitriolic, nitrous, and muriatic acids, with concentrated solutions of caustic alkalies, and caustic calcareous earth, forming compounds soluble in, and diffusible through water. Acids, and some metallic salts dissolved in water and concentrated, but not to that degree as to dissolve it, alcohol and aluminous salts coagulate it. It is also coagulable by the heat of boiling water, but not by a less degree of heat.

The mucus defends the membranes from being so much stimulated by any application as they would be, if they were not covered with it.

If the secretion be suddenly increased, the matter secreted is often a thin watery fluid, containing the salts of the blood, and in consequence of them capable of stimulating, and the membranes are not defended from external applications.

If a greater secretion should continue than what naturally takes place, the mucus retains the salts, but often acquires a viscosity, and becomes incapable of being diffused through water; its colour also often grows white, greenish, or yellow; and now and then it acquires a smell; especially if the mucous glands or membrane be inflamed. *Fordyce's Elem.*

The saliva is secreted by several glands opening into the mouth; and the principal part of it is thrown down

into the stomach, to answer some purpose in the digestion of the food. It is a fluid of an adhesive viscosity, with difficulty diffusible through water.

It consists of water, a mucilage similar to that of the mucus, and the salts of the blood, but not in so large a proportion as they are contained in the serum. It contains a larger proportion of water than the mucus. In its other properties it is similar to the mucus, in as far as they have been investigated.

The pancreatic juice appears to be similar to the saliva, except that it is less viscid, and contains a larger proportion of the salts of the blood. The saliva and pancreatic juice are probably watery menstrua for the solution of the food in the stomach and intestines, their viscosity preventing them from being absorbed before they produce that effect. They have been said to act as ferments during the digestion; but as the fermentations of the stomach have never been made to take place out of it, we cannot judge of this by any experiment hitherto communicated to the public. *Fordyce.*

MEDICAL ELECTRICITY.

THE application of this subtle fluid to medicinal purposes was thought of soon after the discovery of the electric shock; and after various turns of reputation, its medical virtues seem now to be pretty well established. To give a particular description of electrical apparatus would be foreign to our purpose here; we shall therefore only observe, that Mr. Cavallo, who has published the latest and the best treatise on Medical Electricity, entirely disapproves of giving violent shocks, and finds it most efficacious to expose the patient to the electrical aura discharged from an iron or a wooden point; or, if the shocks are given, they should be very slight and not exceed twelve or fourteen at a time. In this way he recommends it as effectual in a great number of disorders. The patient may be electrified

from three to ten minutes; but if sparks are drawn, they should not exceed the number of shocks above-mentioned.

In Rheumatic Disorders.

RHEUMATIC disorders, even of long standing, are relieved, and generally quite cured, by only drawing the electric fluid with a wooden point from the part, or by drawing sparks through flannel. The operation should be continued for about four or five minutes, repeating it once or twice every day.

Its Effect in curing Deafness.

DEAFNESS, when it is not occasioned by obliteration, or other improper configuration of the parts, is either entirely or partly cured by drawing the sparks from the ear with the glass-tube director, or by drawing the fluid with a wooden point. Sometimes it is not improper to send exceedingly small shocks (for instance, of one thirtieth of an inch) from one ear to the other. It has been constantly observed, that whenever the ear is electrified, the discharge of the wax is considerably promoted.

In curing the Tooth-Ach.

WHEN the tooth-ach is occasioned by cold, rheumatism, or inflammation, it is generally relieved by drawing the electric fluid with a point, immediately from the part, and also externally from the face. But when the body of the tooth is affected, electrization is of no use; for it seldom or never relieves the disorder, and sometimes increases the pain to an extreme degree.

Its use in Swellings.

SWELLINGS, in general, if they contain no matter, are generally cured by drawing the electric fluid with a wooden point. The operation should be continued for three or four minutes every day. It is very remarkable, that in some cases of white swellings, quite cured by means of electricity, the bones and cartilages were in some measure disfigured.

In Inflammations.

INFLAMMATIONS, of any kind, are generally relieved by a very gentle electrization.

Inflammation of the Eyes.

IN inflammation of the eyes, the throwing of the electric fluid by means of a wooden point, is constantly attended with great benefit; the pain being quickly abated, and the inflammation being generally dissipated in a few days. In these cases, the eye of the patient must be kept open; and care should be taken not to bring the wooden point very near it, for fear of causing any spark. Sometimes it is sufficient to throw the fluid with a metal point; for in these cases, too great an irritation should be always avoided. It is not necessary to continue this operation for three or four minutes without intermission; but, after throwing the fluid for about half a minute, a short time may be allowed to the patient to rest and to wipe his tears, which generally flow very copiously; then the operation may be continued again for another half minute, and so on four or five times every day.

The Gutta Serena.

THE gutta serena has frequently been cured by electrization; but it has, in many such cases, proved ineffectual, when administered for a long time, and with all possible attention. It has never been known, however, that any body was made worse by it. The best method of administering electricity, in such cases, is first to draw the electric fluid with a wooden point for a short time, and then to send about half a dozen shocks of one-twentieth of an inch from the back and lower part of the head to the forehead, very little above the eye.

A remarkable disease of the eye was some time ago perfectly cured by electrization; it was an opacity, or cloudiness of the vitreous humour of the eyes. This seems to be the only case of the kind to which electricity was applied.

Cases

Cases of Fistula Lacrymalis.

ALL the cases of fistula lacrymalis which Mr. Cavallo has known to have been electrified by persons of ability for a sufficient time, have been entirely cured. The method generally practised, has been that of drawing the fluid with a wooden point, and to take very small sparks from the part. The operation may be continued for about three or four minutes every day. It is remarkable that, in those cases, after curing the fistula lacrymalis, no other disease was occasioned by it, as blindness, inflammation, &c. by suppressing that discharge.

Its Use in Ulcers and Sores.

ULCERS, or open sores of every kind, even of a long standing, are generally disposed to heal by electrization. The general effects are a diminution of the inflammation, and at first a promotion of the discharge of properly formed matter; which discharge gradually lessens according as the limits of the sore contract, till it is quite cured. In these cases the gentlest electrization must be used, in order to avoid too great an irritation, which is generally hurtful. To draw or throw the fluid with a wooden, or even with a metal point, for three or four minutes a-day, is absolutely sufficient.

Cutaneous Eruptions, or Eruptions of the Skin.

CUTANEOUS eruptions have been successfully treated with electrization; but, in these cases, it must be observed, that if the wooden point is kept too near the skin, so as to cause any considerable irritation, the eruption will be caused to spread more; but if the point be kept at about six inches distance, or farther, if the electrical machine is very powerful, the eruptions will be gradually diminished, till they are quite cured. In this kind of disease, the immediate and general effect of the wooden point is to occasion a warmth about the electrified part, which is always a sign that the electrization is rightly administered.

Scrophulous

Scrophulous Tumours.

WHEN scrophulous tumours are just beginning, they are generally cured by drawing the electric fluid with a wooden or metal point from the part. This is one of those kinds of diseases in which the action of electricity requires particularly the aid of other medicines, in order to effect a cure more easily; for scrophulous affections generally accompany a great laxity of the habit, and a general cachexy, which must be obviated by proper remedies.

The Use of Electricity in Cancers.

IN this disease the pains only are generally alleviated, by drawing the electric fluid with a wooden or metal point from the part. Mr. Cavallo, however, mentions one case in which a most confirmed cancer, of very long standing, on the breast of a woman, has been much reduced in size. It is remarkable, that this patient was so far relieved by drawing the fluid with a metal point from the part, that the excruciating pains she had suffered for many years almost disappeared, and also, that when the electric fluid was drawn by means of a wooden point, the pains rather increased. The person was long under the application of electricity; and the cancers seemed not unlikely to be perfectly cured, though contrary to the expectations even of the judicious physician who electrified her, and who knew well the nature of that dangerous disease.

Of Abscesses.

WHEN abscesses are in their beginning, and in general whenever there is any tendency to form matter, electrization disperses them. For instance, in a case in which matter was formed upon the hip, called the *lumbar abscess*, the disease was perfectly cured by means of electricity. The sciatica has also been often cured by it. In all such cases, the electric fluid must be sent through the part by means of two directors applied to opposite parts, and in immediate contact
either

either with the skin or with the coverings, when these are very thin. It is very remarkable, that the mere passage of the electric in the fluid manner, is generally felt by the patients afflicted with those disorders, nearly as much as a small shock is felt by a person in good health. Sometimes a few shocks have been also given, but it seems more proper to omit them; because sometimes, instead of dispersing, they rather accelerate the formation of matter.

Cure of the Nervous Head-Ach.

THE nervous head-ach, even of long-standing, is generally cured by electrization. For this disease, the electric fluid must be thrown with a wooden, and sometimes even with a metal point, all round the head successively. Sometimes exceedingly small shocks have been administered; but these can seldom be used, because the nerves of persons subject to this disease, are so very irritable, that the shocks, the sparks, and sometimes even the throwing the electric fluid with a wooden point kept very near the head, throw them into convulsions.

Of curing the Gout.

HOWEVER extraordinary it may appear, the gout has certainly been relieved by means of electricity, in many instances. The pain has been generally mitigated, and sometimes the disease has been removed so well as not to return for some time. In these cases, the electric fluid has been thrown by means of a wooden point, although sometimes, when the pain was too great, a metal point only has been used.

In Agues.

AGUES are frequently cured by electricity, so that sometimes one electrization, or two, have been sufficient. The surest and most effectual method has been that of drawing sparks through flannel, or the cloaths, for about ten minutes or a quarter of an hour. The patients may be electrified either at the time of the fit, or a short time before it is expected.

In Suppression of the Menfes.

THIS is a disease of the female sex which often occasions the most disagreeable and alarming circumstances; it is successfully and speedily cured by means of electricity, even when the disease is of long standing, and after the most powerful medicines used for it have proved ineffectual. The cases of this sort, in which electrization has proved useless, are so few, and the successful ones so numerous, that the application of electricity for this disease may be justly considered as an efficacious and certain remedy. Great attention and knowledge is required, in order to distinguish the arrest, or suppression, of the menses from a state of pregnancy. In the former, the application of electricity is very beneficial; but in the latter it may be attended with very disagreeable effects: it is therefore a matter of great importance to ascertain the real cause of the disease before the electricity be applied in those cases. Pregnant women may be electrified for other diseases, but always using very gentle means, and directing the electric fluid through other parts of the body distant from those subservient to generation. In the real suppression of the menses, small shocks, that is, of about one-twentieth of an inch, may be sent through the pelvis; sparks may be taken through the cloaths from the parts adjacent to the seat of the disease; and also the electric fluid may be transmitted by applying the metallic or wooden extremities of two directors to the hips, in contact with the cloaths; part of which may be removed in case they are too thick. The various applications of electricity should be regulated according to the constitution of the patient. The number of shocks may be about twelve or fourteen. The other applications may be continued for two or three minutes, repeating the operation every day. But either strong shocks, or a stronger application of electricity than the patient can conveniently bear, should be carefully avoided; for by those means, sometimes more than a sufficient discharge is occasioned, which is not easily cured.

cured. In cases of uterine hæmorrhages, it is not known that the application of electricity was ever beneficial, neither that it has been often tried. Perhaps a very gentle electrization, so as to keep the patient insulated and connected with the prime conductor, whilst the electrical machine is in action, may be of some benefit.

In respect to unnatural discharges and fluxes in general, it may be observed, that some discharges are quite unnatural or adventitious, as the fistula lachrymalis, and some species of the venereal disease; but others are only increased natural discharges, such as the menses, perspiration, &c. Now the power of electricity, in general, has been found more beneficial for the first, than for the second sort of discharges, which are mostly increased by it.

The application of electricity has also been found beneficial in other diseases besides those mentioned above; but as the facts are not sufficiently numerous, so as to afford the deduction of any general rules, we have not thought proper to take any particular notice of them.

We may lastly observe, that, in many cases, the help of other remedies to be prescribed by the gentlemen of the faculty is required to assist the action of electricity, which by itself would perhaps be useless; and on the other hand, electrization may often be applied to assist the action of other remedies, as of sudorifics, strengthening medicines, &c.

OBSERVATIONS ON THE MEANS OF PRESERVING HEALTH.

THAT part of the medical system which lays down rules for the preservation of health, and prevention of diseases, is not to be strictly understood as if it respected only those people who enjoy perfect health, and who are under no apprehensions of disease, for such seldom either desire or attend to medical advice; but should

rather be considered as relating to valetudinarians, or to such as, though not actually sick, may yet have sufficient reasons to fear that they will soon become so: hence it is that the rules must be applied to correct morbid dispositions, and to obviate the various things that were shewn to be the remote or possible causes of diseases.

From the manner in which the several temperaments are usually mentioned by systematic writers, it should seem as if they meant that every particular constitution must be referred to one or other of the four; but this is far from being reducible to practice, since by much the greater number of people have constitutions so indistinctly marked, that it is hard to say to which of the temperaments they belong. When we actually meet with particular persons, who have evidently either,

1. Too much strength and rigidity of fibre, and too much sensibility.

2. Too little strength, and yet too much sensibility.

3. Too much strength, and but little sensibility; or

4. But little sensibility, joined to weakness,—we should look upon such persons as more or less in the valetudinary state, who require that these morbid dispositions be particularly watched, lest they fall into those diseases which are allied to the different temperaments.

People of the first-mentioned temperament being liable to suffer from continued fevers, especially of the inflammatory species, their scheme of preserving health should consist in temperate living, with respect both to diet and exercise; they should studiously avoid immoderate drinking, and be remarkably cautious lest any of the natural discharges be checked. People of this habit bear evacuations well, especially bleeding; they ought not, however, to lose blood but when they really require to have the quantity lessened; because too much of this evacuation would be apt to reduce the constitution to the second-mentioned temperament, wherein strength is deficient, but sensibility redundant.

Persons

Persons of the second temperament are remarkably prone to suffer from painful and spasmodic diseases, and are easily ruffled; and those of the softer sex who have this delicacy of habit, are very much disposed to hysterical complaints. The scheme here should be to strengthen the solids by moderate exercise, cold-bathing, the cortex, and chalybeate water; particular attention should constantly be had to the state of the digestive organs, to prevent them from being over-loaded with any thing that might engender flatus, or irritate the sensible membranes of the stomach and intestines, from whence the disorder would soon be communicated to the whole nervous system. Persons of this constitution should never take any of the drastic purges, nor strong emetics; neither should they lose blood but in cases of urgent necessity. But a principal share of management, in these extremely irritable constitutions, consists in avoiding all sudden changes of every sort, especially those with respect to diet and cloathing, and in keeping the mind as much as possible in a state of tranquillity: hence the great advantages which people of this frame derive from the use of medicinal waters drank on the spot, because of that freedom from care and serious business of every kind, which generally obtains in all the places laid out for the reception of valetudinarians.

The third-mentioned temperament, where there is an excess of strength, and but little sensibility, does not seem remarkably prone to any distressing or dangerous species of disease; and therefore it can hardly be supposed that persons so circumstanced will either of themselves think of any particular scheme of management, or have recourse to the faculty for their instructions; such constitutions, however, we may observe, bear all kinds of evacuations well, and sometimes require them to prevent an over-fulness, which might end in an oppression of the brain, or some other organ of importance.

But the fourth temperament, where we have weakness joined to want of sensibility, is exceedingly apt to fall into tedious and dangerous diseases, arising from a

defect of absorbent power in the proper sets of vessels, and from remissness of the circulation in general; whence corpulency, dropsy, jaundice, and different degrees of scorbutic affection. In order to prevent these, or any other species of accumulation and depravation of the animal-fluids, the people of this constitution should use a generous course of diet, with brisk exercise, and be careful that none of the secretions be interrupted, nor any of the natural discharges suppressed. These constitutions bear purging well, and often require it; as also the use of emetics, which are frequently found necessary to supply the place of exercise, by agitating the abdominal viscera, and are of service to prevent the stagnation of bile, or the accumulation of mucous humours, which hinder digestion, and clog the first passages. The free use of mustard, horse-radish, and the like stimulating diuretics, is serviceable in these turbid habits.

When the general mass of fluids is accumulated beyond what is conducive to the perfection of health, there arises what the writers term a *plethora*, which may prove the source of different diseases; and therefore, when this over-fulness begins to produce languor and oppression, care should be taken in time to reduce the body to a proper standard, by abridging the food and increasing the natural discharges, using more exercise, and indulging less in sleep. But in opposite circumstances, where the fluids have been exhausted, we are to endeavour to prevent further waste by the use of strengthening stomachics, nourishing diet, and indulgence from fatigue of body and mind.

Vitiated fluids are to be considered as affected either with the different kinds of general acrimony, or as betraying signs of some of the species of morbid matter which gives rise to particular diseases, such as gout, rheumatism, stone, scurvy, &c.

Where the fluids tend to the putrefactive state, which shews itself by the rottenness of the teeth, sponginess, and bleeding of the gums, a bloated look, and livid cast;

cast ; the diet then should be chiefly of fresh vegetables and ripe fruits, with wine in moderation, brisk exercise, and strengthening bitters.

Where acrimony shews itself by itching eruptions, uncommon thirst, and flushing heats, nothing will answer better than such sulphureous waters, as the Harrowgate and Moffat in Britain, or the Lucan and Swadlinbar in Ireland ; at the same time using a course of diet that shall neither be acrid nor heating. So far with respect to those kinds of morbid matter which do not invariably produce a particular species of disease : but there are others of a specific nature, some of which are generated in the body spontaneously, and seem to arise from errors in diet, or other circumstances of ill management with respect to the animal œconomy ; and hence it is sometimes possible, in some degree, if not altogether, to prevent the ill consequences. Thus, there are instances where returns of the gout have been prevented by adhering strictly to a milk diet.

The rheumatism has also been sometimes warded off, by wearing a flannel shirt, or by using the cold bath without interruption.

The stone may be retarded in its progress, and prevented from creating much distress, by the internal use of soap and lime-water, or by soap-lees taken in milk, or in veal-broth.

The putrid scurvy may be prevented by warm cloathing, and perseverance in brisk exercise, by drinking wine or cyder, and eating freely of such vegetable substances as can be had in those situations, where this disease is most apt to shew it.

In constitutions where there is an hereditary disposition to the scrophula, if early precautions be taken to strengthen the solids by cold bathing, a nourishing course of diet, and a moderate use of wine, the acrimony which gives rise to the disease will probably be prevented from producing any very bad effects.

Crude vegetables, milk, butter, and other oily substances are to be avoided by persons troubled with a sourness at the stomach ; brisk exercise, especially riding,

is to be used, and they are to refrain from fermented liquors: the common drink should be pure water; or water with a very little of some ardent spirit, such as rum or brandy. Selters and Vahls waters are to be drank medicinally; and aromatic bitters, infusions, or tinctures, with the acid elixir of vitriol, from ten to twenty drops, will be found serviceable, in order to strengthen the fibres of the stomach, and promote the expulsion of its contents, thereby preventing the too hasty fermentation of the alimentary mixture. In order to procure immediate relief, the *magnesia alba*, or *Creta Præparata* will seldom fail; and the *magnesia*, as well as the other, may be made into lozenges, with a little sugar and mucilage; and in that form may be carried about and taken occasionally.

In constitutions where there is an exuberance or stagnation of bile, and a troublesome bitterness in the mouth, it is necessary to keep the bowels free, by taking occasionally small doses of pure aloes, *oleum ricini*, cream of tartar, some of the common purging salts, or the natural purging waters. The patient should carefully avoid all those oily and high-seasoned things usually termed made-dishes, and eat sparingly of plain meat, without rich sauces, or much gravy: in these cases the best drink is pure water.

RULES FOR THOSE WHO ARE IN PERFECT HEALTH.

THOSE who are so happy as to enjoy perfect health, should observe temperance, in order to preserve that inestimable blessing. It is safer to proceed to excess in drink than in meat, and if the debauch should create any extraordinary or distressing degree of pain or sickness, and a temporary fever should ensue, there are two ways of shaking it off, either to lie in bed and encourage perspiration, or to get on horse-back and by brisk exercise restore the body to its natural state. The choice of these two methods must always be determined by the peculiar circumstances of the parties concerned, and from the experience which they may have had which agrees best with them.

If

If a person should commit excess in eating, especially of high seasoned things, with rich sauces, a draught of cold water, sharpened with spirit of vitriol, will take off the sense of weight at the stomach, and assist digestion, by moderating and keeping within bounds the alimentary fermentation, and thus preventing the generation of too much flatus. The luxury of ices may be here of real service at the tables of the great, as producing similar effects with the cold water acidulated. Persons in these circumstances ought not to lay themselves down to sleep, but should keep up and exercise until they are sensible that the stomach is unloaded, and that they no longer feel any oppressive weight about the præcordia.

We are advised by Celsus to vary the scenes of life, and not confine ourselves to any settled rules; but as inaction renders the body weak and listless, and exercise gives vigour and strength, people should never long omit riding, walking, or going abroad in a carriage; fencing, playing at tennis, or dancing, as each shall be found most agreeable or convenient, are to be used in their turns, according to the circumstances and tendency to any particular species of disease. But when the weakness of old age shall have rendered the body incapable of all these, then dry frictions with the flesh-brush will be extremely requisite to preserve health, by accelerating the flow of humours through the smallest order of vessels, and preventing the fluids from stagnating too long in the cellular interstices of the fleshy parts.

Sleep is the great restorer of strength; for, during this time, the nutritious particles appear to be chiefly applied to repair the waste, and replace those that have been abraded and washed off by the labour and exercise of the day: but too much indulgence in sleep has many inconveniences, both with regard to body and mind, as it blunts the senses, and encourages the fluids to stagnate in the cellular systems; whence corpulency, and its necessary consequences languor and weakness.

The

The proper time for sleep is the night season, when darkness and silence naturally bring it on; therefore day-sleep, in general, is not so refreshing; and to some people it is really distressing, as creating an unusual giddiness and languor, especially to persons who delight in literary pursuits. Custom, however, frequently renders sleep in the day necessary; and in those constitutions where it is found to give real refreshment, it ought to be indulged.

With regard to the general regimen of diet, it has always been held as a rule, that the softer and milder kinds of aliment are most proper for children and younger subjects; that grown persons should eat what is more substantial; and old people lessen their quantity of solid food, and increase that of their drink.

OF WOUNDS, FRACTURES, BRUISES, STRAINS, RUPTURES, BOILS, CARBUNCLES, ULCERS, &c.

OF WOUNDS, OR FRACTURES.

IT is a mistaken notion that certain herbs, ointments, and plasters are possessed of healing powers, and that without the application of these no wound can be cured. It is a certain fact, that no external application can contribute towards the cure of a wound, in any other respect than by keeping the parts soft and clean, and defending them from the external air, and this may be safely and most effectually done by the application of dry lint.

Neither are internal applications of any other service than as they tend to prevent a fever, or to remove any cause that might impede or obstruct the operations of nature. Nature alone can cure wounds; art indeed can remove obstacles, and put the parts in a condition to be most favourable to the efforts of nature. In slight wounds which hardly penetrate deeper than the skin, a bit of common black sticking plaster is a proper application.

application. This keeps the sides of the wound together, and prevents injury from the air, which is all that is required.

When a wound penetrates deep, the lips of it should not be kept quite close, as the matter, by being confined, will probably make the wound fester. In this case, the most prudent step is to fill the wound with soft lint; care should be taken, however, not to stuff it so hard as to do injury. The lint may be covered with a cloth, dipped in oil, or spread with the common wax-plaster; and the whole must be secured by a proper bandage.

The first dressing should continue on two days at the least; after which it may be removed, and fresh lint applied as before. Should any part of the first dressing stick so close as not to be easily and safely removed, it may be suffered to continue, and fresh lint dipped in sweet oil should be laid over it. This will so far soften it, that it will come off without difficulty at the next dressing.

The wound may afterwards be dressed twice a-day, in the same manner, till it is healed. When the wound is become very superficial, it may be dressed with yellow basilicum. If fungus, which is usually termed proud flesh, should rise in the wound, it should be checked by mixing with the ointment a little burnt alum or red precipitate of mercury.

As we are not now admonishing the experienced surgeon, we shall consider only such points as are necessary to be attended to by the patient and his friends, during the first moments of any accident.

If, by a fall from any height, or any other accident, much injury appears to have been received, the sufferer being rendered incapable of pointing out the injured part; some consideration is required before attempts are made to raise him from the ground, because, by the precipitate exertions of his assistants, without knowing what injury may have been sustained, a simple fracture might be made a dangerous compound one. The limbs should therefore be carefully and tenderly

examined; and if no material injury is perceived, the patient ought not to be raised, till something be provided on which he may conveniently be placed. If, from the deprivation of his senses, it may reasonably be concluded that the brain may have suffered some injury, great care should be taken that whilst he is conveying home, and whilst laying in the bed, the head be kept moderately raised, and that, on no consideration whatever, any spirituous liquors may be given him.

If it should appear, that a leg or thigh is broken, the aid and advice of a surgeon should, if possible, be obtained for his removal. If this cannot be obtained, the following rules should be particularly attended to:

1. He must not be stirred till a proper vehicle can be procured on which he may be placed.

2. A door, a shutter, or two or three planks, or boards, if well secured together, may answer the purpose, if nothing better can be procured.

3. Two persons may raise him, and place him on this vehicle, by placing a sheet under his hips, whilst one or two raise him by the shoulders; one person raising the sound leg, and another carefully conducting the fractured limb.

4. In moving the fractured limb, great care is required to keep the divided pieces of the bone as much as possible in the same line, that the soft parts may not be pierced, by the fractured ends.

5. If a pillow can be procured, the broken limb should be placed on it; and, if practicable, this had better be done before he is raised.

6. When on the litter, he should be placed a little inclined to the same side of the injured limb, which, if convenient, should also be laid on the side, and with the knee a little bent.

7. The patient should be carried by two or four men, in the manner in which a sedan chair is carried. A cart, or even a coach, are very ill calculated for such a purpose.

8. As the patient must lay some time without getting up, a mattress should be placed on his feather-bed, or,

if that cannot be procured, two or three boards joined together, may be placed under the feather-bed. If this can be done before the patient is first laid down, much pain and trouble will be prevented.

If the arm be broken at the upper part, let it be supported in a sling at the wrist, allowing the elbow to droop; if the lower part, let the arm be supported in a sling, with the palm of the hand turned to the body.

When a large bone is broken, the patient should observe the same regimen as in an inflammatory fever. He should also be kept quiet and cool, and his food should be of an opening quality; as stewed prunes, boiled spinnage, and apples boiled in milk. Those persons, however, who have been accustomed to live high, should not suddenly be reduced to a very low diet, lest disagreeable consequences should ensue.

Bleeding is generally necessary immediately after a fracture, especially if the patient be young, of a full habit, or has, at the same time, received any bruise or contusion. This operation should be performed soon after the accident, and if the patient be very feverish, it may be repeated the next day. When several ribs are broken, bleeding is essentially necessary.

In fractures of the ribs, where a bandage cannot conveniently be used, an adhesive plaster may be applied over the part. In this case, the patient should keep himself quite easy, and avoid sneezing, coughing, or the like, as much as possible. He should keep his body in a straight posture, and take care that his stomach be constantly distended, by often taking some light food, and drinking freely of weak watery liquors.

A very proper external application for a fracture is oxycrate, or a mixture of vinegar and water: With this should the bandages be wet at every dressing.

In these, and all other cases of dangerous wounds and fractures, a skilful surgeon should be called as soon as possible. But it sometimes happens that the discharge of blood is so great and alarming, that if it be not stopped, the patient may die even before a surgeon can arrive. Something is therefore necessary to be im-

mediately done by those who are present. Should the wound be in any of the limbs, a tight ligature or bandage should be tied round the part, a little above the wound; by which the bleeding would generally be stopped. This may be done by putting a strong broad garter round the part, but so slack as easily to admit a small piece of stick under it, which must be twisted till the bleeding stops: After which he must discontinue twisting it, as by straining it too much, he might occasion an inflammation of the parts, and bring on a gangrene.

In other parts of the body, where this bandage cannot conveniently be applied, recourse may be had to various methods to stop the bleedings, as the application of styptics, astringents, &c. Cloths dipped in a solution of blue vitriol in water, or the styptic water of the Dispensatories, may be applied to the wound. Or strong spirits of wine may be used for this purpose. Agaric of the oak has been highly spoken of, as being preferable to any of the other styptics, and it seems entitled to the encomiums it has received.

Tinctures, spirits, and hot balsams are sometimes used to stop the bleeding when it is excessive, but they are improper at other times; as they retard the cure instead of promoting it, and often convert a simple wound into an ulcer. When a wound is very much inflamed, a poultice of bread and milk, softened with a little sweet oil or fresh butter, is the most proper application. It should be applied instead of a plaster, and ought to be changed twice a-day.

OF BURNS AND SCALDS.

IN slight burns where the skin is not broken, it is found serviceable to hold the part near the fire for a reasonable time, to rub it with salt, or to lay a compress upon it dipped in spirits of wine or brandy; but when the burn has blistered or broken the skin, it must be dressed with a liniment for burns, or what is usually called Turner's cerate. This may be mixed with an equal quantity of fresh olive-oil, and spread upon a soft
rag,

rag, and applied to the part affected. When the burning is deep, it should, after the first two or three days, be dressed with equal quantities of yellow basilicum and Turner's cerate, mixed together.

When the violence of the burn has occasioned a great degree of inflammation, and a gangrene or mortification may be apprehended, such measures should be pursued as are recommended in other violent inflammations. In this case, the patient should live low, and drink plentifully of weak diluting liquors. He must also lose some blood, and have his body kept open. Should the burnt parts appear livid or black, or shew any other symptoms of mortification, they should be frequently bathed with warm camphorated spirits of wine, tincture of myrrh, or other antiseptics, mixed with a decoction of the bark. The bark should also be taken internally, and the patient must be allowed a more generous diet.

Dr. Underwood observes, that, A strong solution of soap in water has long been in use with artificers, employed in any business exposing workmen to very bad scalds; and is a very excellent remedy. But as the soap would take some time in dissolving, and the solution some time in cooling, the doctor recommends a mixture of six ounces of oil to ten of water, with two drams of the ley of kali, or pot-ash. This quantity may be sufficient for a burn on the hand or foot, which is to be immersed, and kept about half an hour in the liquor, which will remove the injury, if had recourse to immediately; but must be repeated as the pain may require, if the scald or burn be of some standing. Should a person be scalded all over, and be immediately put into a cold bath of this kind, and the head, at the same time, be frequently immersed, or well washed with the liquor, I believe, the Doctor says, very little injury would ensue.

Mr. Parkinson is of opinion, that a strong brine seems particularly useful on these occasions. His words are these:—"The most useful application, I think, "with which families can be provided, against the
"moment

“moment of emergency, is a strong brine, made by
“placing sliced potatoes and common salt in alternate
“layers in a pan, allowing them to remain until the
“whole of the salt is liquified; which must be then
“drained off, and kept in bottles, properly labelled,
“ready for immediate use.”

The ulcerations occasioned by scalds and burns, require so much nicety in their management, that the aid of a skilful surgeon should be procured, to prevent inconveniences for the rest of the patient's life, from rigid contractions of parts, or unnecessary and distressing deformities.

As many calamitous accidents have lately happened, particularly among females, by their apparel having taken fire in a room, &c. the following cautions may be necessary. If a similar misfortune should happen to any one of our readers, it would be natural for her to call for help; and, overcome with terror and surprise, she might open the door of her apartment for that purpose; in consequence of which the external air would immediately rush in, and increase the rapidity of the progress of the flames. If, instead of thus imprudently opening the door, she had given the alarm by a reiterated or continual ringing of the bell, less injury would doubtless be sustained before assistance could be obtained.

In such a dreadful conflict, that part of the clothing which is in flames should be first torn off, and if any water should happen to be in the room where the accident has happened, it should be recollected and flown to. The fair sufferer should seat herself on the floor, as in that posture she will be better enabled to smother the flames of her lower garments, and an erect posture would probably facilitate a communication of the flames to the upper part of her dress. A hearth carpet, (if such a thing should happen to be in the room) would, from the materials of which it is composed, be found extremely useful in extinguishing the flames, by laying it over the clothes, or wrapping it tight round them.

Females

Females are usually the subjects of these misfortunes, their clothing being of a more combustible kind. Woolen cloths not only burn slower than linen or cotton, but give a more speedy alarm of fire by the smell. Women who are aged and infirm should be prevailed on to wear gowns and aprons of silk, or of stuffs wherein worsted and silk is blended. They should always bear in remembrance, *that muslin and fine linen will catch fire almost with a spark, and burn with the most astonishing rapidity.*

OF ACCIDENTS.

ACCIDENTS have often a fatal termination, because proper means are not employed to counteract their effects. When a person appears to be suddenly deprived of life, the enquiry should be made respecting the cause of it. If any substance be lodged in the windpipe or gullets, attempts should be made to remove it. If unwholesome air is the cause, the patient should instantly be removed out of it. If the circulation be suddenly stopped, except mere weakness is the cause, the patient should be bled. If the blood does not flow, he should be immersed in warm water, or rubbed with warm cloths, &c. If the cause cannot be suddenly removed, endeavours must be used to keep up that vital warmth, by rubbing him with hot cloths, or salt, and covering him with warm ashes, sand, &c.

OF BRUISES.

BRUISES are often productive of worse consequences than wounds; because the danger from them is not at first known, and consequently they are apt to be neglected. In slight cases nothing more is necessary than to bathe the part with warm vinegar, adding occasionally a little brandy or rum, and to keep cloths wet with this mixture continually applied to it. The common method of rubbing it with spirits of wine, brandy, or other strong spirits, is less effectual.

It is not uncommon, in several parts of the country, to apply a cataplasm or poultice of fresh cow-dung to
a recent

a recent bruise, and it is generally found to have a very good effect.

When a person receives a very violent bruise, he should instantly be bled, and limited to a proper regimen. His diet should be light and cool, and his drink weak, and of a laxative kind; as whey sweetened with honey, decoctions of tamarinds, &c. Let the bruised part be bathed with vinegar and water, as mentioned above; and apply a poultice to it made by boiling crumb of bread, camomile-flowers, and elder-flowers, in equal quantities of vinegar and water. If the bruise is accompanied with a wound, this poultice is particularly proper.

If, by a violent bruise, the structure of the vessels is destroyed, a great loss of substance frequently ensues, which produces an obstinate ulcerous sore. Should the bone be affected, the sore will not heal before the diseased part of the bone separates, and passes out through the wound. This indeed is often a very slow operation, and sometimes requires years to be completed. Hence these sores are often taken for the King's evil, and usually treated as such.

To patients thus situated, every old woman pretends to be a physician, and to possess an infallible specific for eradicating the complaint; these assurances are attentively listened to by the unfortunate sufferer, and he is daily pestered with proposals of a new remedy, till the sore is so much irritated with various and opposite applications, that it is become absolutely incurable. The proper method of managing such sores, is to apply only some simple ointment, spread upon soft lint, over which a poultice of bread and milk, with boiled camomile-flowers, may be put, to nourish the part, and keep it soft and warm. Nature, thus assisted, will in time generally perform a cure, by throwing off the diseased parts of the bones, after which the sore will speedily heal. In the mean time, however, care must be taken that the patient's constitution is not injured by confinement, or improper medicine.

OF BOILS.

A BOIL is a hard tumour spreading below the surface, and rising a little above the level of the skin. It is generally about the size of a pigeon's egg. In a few days after its appearance, a small discharge of matter issues from a little opening in the most prominent part of the tumour. Boils are painful and inconvenient, but generally without danger, and seldom absolutely require chirurgical aid, but the cure might often be accomplished much sooner by a free opening, and other assistance from a practical surgeon. The application of warm fomentations, and emollient cataplasms generally bring them into a good state; and when a tolerable opening is obtained, the ulcer may be dressed with any mild digestive ointment, when a cure may be effected without much difficulty. Regard must, however, be had to the general state of the system; for if the state on which they depend is not changed, the patient may be harrassed with future sufferings, by their making their appearance in different parts of the body. Much benefit, in such cases, may be expected from the use of tonic and strengthening remedies, as the bark, sea-bathing, &c. The practice frequently adopted of putting the patient under a course of drastic purgatives is often succeeded by very ill consequences.

OF THE CARBUNCLE.

THIS terrible disease is sometimes cured, but not without the exertion of a skilful surgeon, and the most scrupulous exactness in pursuing his directions. The carbuncle, at its first appearance, is not unlike a common boil, and may probably be often mistaken for it, which must certainly be productive of the most dangerous consequences, for by treating the disease as a common boil, it would be suffered to make so rapid a progress, that all endeavours to save the life of the patient would be found useless.

OF ULCERS.

ULCERS may either proceed from a bad habit of body, or they may be the consequence of wounds, bruises, or imposthumes improperly treated. If they proceed from a bad habit of body, they must not be hastily dried up. Ulcers most frequently happen in the decline of life, especially to those who live grossly, and neglect proper exercise. They might often be prevented by adopting a plan of temperance in eating and drinking, or by opening artificial drains, as issues, setons, &c.

Ulcers may be distinguished from wounds by their discharging a thin watery humour, which is often of so acrimonious a nature as to inflame and corrode the skin. They are also known by the hardness and perpendicular situation of their sides or edges, by the time of their duration, &c. Much judgment is required in ascertaining whether an ulcer may be prudently or safely dried up; those proceeding from a bad habit of body, should at least be suffered to continue open till the system has been so far changed by regimen, or medicine, as to shew a disposition to heal of their own accord.

Ulcers occasioned by malignant fevers, or other acute diseases, may, in general, be safely healed, after the health has been for some time restored. They should not, however, be healed too soon, nor without the use of purging medicines, and a proper regimen. When wounds, or bruises, degenerate into ulcers from improper treatment, they may generally be healed with safety, if the constitution be good. When an ulcer is found conducive to the patient's health, whatever cause it may have proceeded from, it ought not to be healed; but if it impairs his strength, and consumes him by a slow fever, it should be healed without delay.

To assist in promoting the cure of ulcers, all salted and high-seasoned food, spices, and strong liquors, should be avoided by the patient; and he should content himself with a smaller quantity of flesh meat than
what

what was his customary allowance. His diet should be of the laxative and cooling kind, and he should endeavour to be cheerful, and use exercise. If the bottom and sides of an ulcer seem hard and callous, sprinkle them twice a-day with a little red precipitate of mercury, and afterwards dress the ulcer with yellow basilicum ointment. Lime-water has often been found serviceable in the cure of obstinate ulcers.

A fistulous ulcer generally requires an operation, and can only be properly cured by an experienced surgeon.

OF STRAINS.

STRAINS, from being neglected, are often attended with worse consequences than broken bones. When a bone is broken, the patient is incapable of using the affected limb or member; but when a joint is only strained, he is very apt to make a shift to move it, and thereby converts into an incurable malady, what might have been removed in a few days by keeping the part perfectly easy.

It is a common practice to immerse a strained limb in cold water; and this practice has a beneficial effect, provided it be done immediately, and that it is not kept in too long. But to keep the part immersed in cold water for a long time is extremely dangerous, by relaxing instead of bracing the part, and consequently tending rather to produce than to remove a disease.

A garter, or some other bandage, wrapped pretty tight about the strained part, is found very useful; as it assists in restoring the proper tone of the vessels, and prevents the action of the parts from increasing the disease. It must not, however, be applied too tight. Ease is more to be depended on than medicine in these cases, and it seldom fails to facilitate a cure.

The following external applications may be used for strains with the greatest safety, *viz.* poultices of stale beer, or vinegar and oatmeal; camphorated spirits of wine; Mindererus's spirit; volatile liniment; volatile aromatic spirit, diluted with double the quantity of

3 X 2

water;

water; and the common fomentation, with the addition of brandy or spirit of wine. Many external applications are recommended for strains which prove very injurious.

MEDICAL PREPARATIONS.

BALSAMS are of an oily, resinous, and odorous substance, issuing from incisions in certain plants. They are liquid, but somewhat thick, and flow spontaneously from certain trees. But what are here treated on are not natural balsams, but certain compositions, which, from their being supposed to possess balsamic qualities, generally go by that name.

Anodyne Balsam.

TAKE one ounce of white Spanish soap; two drams of opium unprepared, and nine ounces of rectified spirit of wine. Digest them together in a gentle heat for three days, then strain off the liquor, and add to it three drams of camphor. This balsam allays pain; and is of service in violent strains and rheumatic complaints, when not attended with inflammation. Let it be rubbed with a warm hand on the part affected; or apply a linen rag, moistened with it, to the part: it should be renewed every third or fourth hour till the pain abates. By leaving out the opium this will be the saponaceous balsam.

Simple Balsam of Sulphur.

BOIL flowers of sulphur with four times their weight of oil olive, in a pot lightly covered, till they unite into the consistence of a balsam.

Thick Balsam of Sulphur.

BOIL four ounces of flowers of sulphur in a pint of linseed oil, over a gentle fire, keeping them continually stirring till they come to the consistence of a balsam.

Traumatic

Traumatic or Vulnery Balsam.

TAKE of benzoin, powdered, three ounces; storax strained, two ounces; balsam of Tolu, one ounce; socotrine aloes, half an ounce; rectified spirit of wine, two pints. Digest the whole in a gentle heat for three days, that the gums may be as much as possible dissolved, and then strain off the balsam for use.

This balsam is applied externally to heal recent wounds and bruises; and is taken internally to remove coughs, asthmas, and other complaints of the breast. It is said to ease the colic, cleanse the kidneys, and to heal internal ulcers, &c. It is a valuable medicine, but perhaps it may not deserve those extravagant encomiums which have been bestowed upon it. The dose is from twenty to sixty drops. This balsam is known by the different appellations of *Friars' Balsam*, *Jesuits' Drops*, *Turlington's Drops*, &c.

Locatelli' Balsam.

TAKE half a pound of Strasburgh turpentine, and the same quantity of yellow wax; one pint of olive oil, and six drams of red saunders. Melt the wax, with some part of the oil, over a gentle fire, and then add the remainder of the oil and turpentine. Lastly mix in the saunders, having first reduced them to a powder, and keep stirring the whole composition till it is cold. The red saunders is no farther useful, than as it improves the smell and colour.

This balsam is used in internal bruises and hæmorrhages, erosions of the intestines, the dysentery, and some kinds of coughs and asthmas: the dose is from two scruples to two drams. It may be commodiously taken with about twice its weight of conserve of roses. It is applied outwardly for healing and cleansing wounds and ulcers.

This class of medicines was formerly held in great esteem, but are less frequently used in modern practice. Balsamics labour under this defect, that they must make a vast progress, in most instances, before they can arrive at the intended scene of action; by which means they

not

not only come slowly, and in small quantities, but much altered, and variously modified, by the action of the blood vessels, and the intermixture of its humours.

In the intentions where balsamics are chiefly given, the seat of the disorder is generally in the viscera; where a medicine can only arrive by the common conveyance of the blood; and how long, from its being taken into the stomach, must such a medicine be, and how many alterations must it undergo in the divers parts of the body it passes through, before it comes to the place desired? Though the lungs are, by their situation, so near the stomach, a medicine cannot arrive there till it has taken its course through the lacteals, passed all the meanders of the mesentery, gone up with the chyle into the subclavian vein, and there entered the blood: and, after all, it has only the chance of coming to the part in such a quantity, as, with regard to the whole medicine which entered the blood, bears the same proportion, as the blood in the pulmonary artery, or the artery of the lungs, bears to all the blood in the other arteries.

Hence nothing is to be expected from balsamics, in a short time, or a few days: they must be repeated and followed, till the animal juices are sufficiently charged therewith, to afford a continual supply. It may be added that balsamics generally load and clog the stomach, and have therefore frequently bad effects. This consideration induced the bishop of Cloyne to prefer tar-water to all other balsamics. See Remarks on the use of balsams in the cure of Consumptions. *Lond. Med. Observ.* Vol. IV, by Dr. Fothergill, who is of opinion that all medicines possessed of heating stimulating qualities, are in general improper in the treatment of that disorder.

BOLUSES.

BOLUSES are of a soft consistence, somewhat more so than that of an electuary, and of the quantity of one dose to be swallowed down; contrived principally for those who have an aversion to liquid medicines, as

also for the better conveyance of certain preparations of mercury, antimony, &c. which, by their weight would sink to the bottom of the glass, were they given in draughts. Boluses being intended for immediate use, volatile salts, and other ingredients improper for keeping, are admitted into their composition. The number of boluses made up at once should not exceed one or two at the utmost; but it is too customary with apothecaries to send in three or four at a time, by which means the last which are taken are usually too hard to be swallowed, and frequently have lost their virtues. The choice of the proper ingredients for a bolus is regulated by the following considerations; a due cohesion, softness, and equable mixture, are essentially necessary to a bolus; for this reason, dry substances must be put to liquid ones, and liquid ones to dry, to produce the proper consistence: but the thicker electuaries, conserves, and robs, are themselves naturally in form of a bolus. They are generally composed of powders, with a proper quantity of syrup, conserve, or mucilage. The lighter powders are usually made up with syrup, and the more ponderous, as mercury, &c. with conserve; but those of the lighter kind would be more conveniently made up with mucilage, as it increases their bulk less than the other additions, and also occasions the medicine to pass down more easily.

Acrid substances, and such as are offensive either to the smell or taste, or are of a very viscid nature, are much more properly exhibited in boluses than in powders; since their offensive qualities are by this means concealed.

Rheumatic Bolus.

TAKE of extract of guaiacum, half a dram; salt of hartshorn, seven grains; simple syrup, a sufficient quantity. Make them into a bolus.

In all chronical rheumatisms, whether the remains of a rheumatic fever, or a continuation of pains that proceeded at first from neglected colds, this bolus has been given with good effects, once a week or oftener; the

the patient keeping warm, and drinking warm liquors; to promote its operation as a cathartic and diaphoretic. Its use ought to be accompanied by bleeding, which is to be repeated every eight or ten days, as long as the blood is fizy.

Astringent Bolus.

THIS is composed of fifteen grains of alum, in powder; five grains of gum kino; and of syrup, a sufficient quantity to make a bolus. In an excessive flow of the *menfes*; and other violent discharges of blood, proceeding from relaxation, administer this bolus every four or five hours, till the discharge abates.

Bolus against the Dysentery.

TAKE of the cordial confection, French bole, each one scruple; Thebaic extract, one grain. Make them into a bolus. This composition is well calculated for the purpose expressed in its title. Dr. Mead assures us, that he has never found any one medicine more effectual, either for restraining the flux, or healing the ulcerated membranes. Previous to the use of this, or other similar medicines, the first passages must be cleansed by mild emetics and purges, as ipecacuanha and rhubarb.

Mercurial Bolus.

TAKE six grains of calomel, and half a dram of conserve of roses. Make a bolus of them. In cases where mercury is necessary, this bolus may be administered two or three times a week. It may be taken over night, and if it does not operate, a few grains of jalap will be necessary to carry it off the next day.

Hysteric Bolus.

TAKE six grains of musk; and six grains of asa-fœtida; castor, half a scruple; with syrup of saffron sufficient to make them into a bolus. This medicine is very well calculated for the purpose expressed in its title. It is of great service in hysterical and hypochondriacal disorders, and often affords relief in the depressions,

pressions, faintings, flatulent colics, head-achs, and other symptoms attending them. It may be taken twice a-day, with any suitable liquor.

Bolus of Rhubarb and Mercury.

TAKE of choice rhubarb, twenty-five grains; calomel, five grains; and as much simple syrup as will form them into a bolus. This is a very mild mercurial purgative, principally intended to expel worms: it is also a proper purge in hypochondriac constitutions. When a stronger purge is necessary, jalap may be used instead of the rhubarb.

Pectoral Bolus.

TAKE of spermaceti, fifteen grains; gum ammoniac, ten grains; salt of hartshorn, five grains; simple syrup, as much as is required to make them into a bolus.

In old coughs, colds of long standing, asthmas, and beginning consumptions, this bolus generally affords relief; especially if bleeding is first used, and repeated, if necessary, at proper intervals.

Purging Bolus.

TAKE jalap, in powder, one scruple; cream of tartar, two scruples; rub them together, and form them into a bolus, with simple syrup. If a mild purge is required, this will answer the purpose very well. Where a stronger dose may be thought necessary, the jalap may be increased to half a dram, or upwards.

CATAPLASMS, POULTICES, &c.

A CATAPLASM or poultice is an external medicine, of a pulpy or soft consistence, like an ointment or cerate; composed of various liquors, parts of plants, oils, &c. according to the variety of intentions. Its common uses are to assuage pain, and soften, discuss, or suppurate matter collected in the external parts of the body. These kinds of applications are softer and easier than plasters or ointments: they are applied of such a consistence as neither to stick close or run. They

are also more useful when the intention is effected by the continuance of the heat or cold which they contain, for they retain them longer than any other kind of composition.

When designed to promote suppuration they should be applied warm. The proper heat, when applied warm, is no more than to promote a kindly pleasant sensation; for great heat prevents the design for which they are used.

Ripening and Suppurating Cataplasms.

FOR this purpose nothing excels the white-bread poultice, made with the crum of an old loaf, a sufficient quantity of milk to boil the bread till it is soft, and a little oil; which last ingredient, besides preventing the poultice from drying and sticking to the skin, also retains the heat longer than the bread and milk alone would do.

Another Ripening Cataplasms.

MAKE a poultice of bread and milk, with a sufficient quantity of either boiled or raw onion in it, and soften it with oil, or fresh butter.

Discutient Cataplasms.

TAKE six ounces of barley meal; two ounces of fresh hemlock leaves, bruised; and a sufficient quantity of vinegar. Boil the meal and hemlock for a short time in the vinegar, and then add two drams of the sugar of lead.

SINAPISMS.

THE sinapism is a poultice made with vinegar instead of milk, made warm and stimulating by the addition of mustard, horse-radish, or garlic. The common sinapism is made by equal quantities of crumb of bread, and mustard-seed in powder; and as much strong vinegar as may be necessary to make it of the consistence of a poultice. When sinapisms of a more stimulating nature are required, add a little bruised garlic to the above.

The use of sinapisms is to recal the blood and spirits to a weak part, as in the palsy and atrophy. They are also found useful in deep-seated pains, as the sciatica, &c. When the head or stomach is attacked by the gout, they are applied to the feet, to bring the disorder to these parts. They are also applied to the soles of the patient's feet in the low state of fevers. They should not, however, lie on till they have raised blisters, but only till the parts become red, and will continue so when pressed with the finger.

CATHARTICS.

CATHARTICS are what we otherwise denominate purgatives, and are remedies which promote evacuation by stool. They are of three principal kinds, *mild*, *moderate*, and *violent*. The first purge gently, as cassia, manna, tamarinds, rhubarb, senna, &c. The second pretty briskly, as jalap, scammony, &c. The third severely, as colocynth, hellebore, laureola, &c.

CLYSTERS.

CLYSTERS not only evacuate the contents of the belly, but serve also to convey very active medicines into the system. For example, opium may be administered this way when it will not sit upon the stomach, and also in larger doses than it can be taken by the mouth. The Peruvian bark may also be effectually administered in the form of a clyster to those who cannot take it by the mouth.

The use of clysters is not confined to medicines: food may also be conveyed in this way. Persons unable to swallow have been supported a long time by clysters.

Anodyne, or Opiate Clyster.

TAKE of infusion of linseed, six ounces; liquid laudanum, forty drops. Or mutton-broth, five ounces; Thebaic extract, three grains.

Laxative Clyster.

TAKE six ounces of milk, and the same quantity of water; two ounces of sweet oil, or fresh butter; and

two ounces of brown sugar. Mix them. By adding to this an ounce of Glauber's salt, or two table spoonfuls of common salt, it will form the Purging Clyster.

Fetid Clyster.

TAKE of asafœtida, two drams; rue, favin, each half an ounce; oil olive, one ounce; oil of amber, half a dram; water, one pint and a half. Boil the water with the rue and favin till half a pint has evaporated; then strain off the remaining concoction, and mix with it the asafœtida and the oils. Half the quantity of the composition here directed is to be injected at a time.

Emollient Clyster.

MIX six ounces of linseed tea with six ounces of new milk. By adding fifty or sixty drops of laudanum to this, it will supply the place of the Anodyne Clyster.

Common Clyster.

TAKE of common decoction, twelve ounces; lenitive electuary, one ounce; common salt, half an ounce; oil olive, two ounces; mix them together.

Oily Clyster.

MIX four ounces of the infusion of camomile-flowers, with an equal quantity of Florence oil. This clyster is efficacious in bringing off the small worms from the lower parts of the alimentary canal. When administered to children, let the quantity be proportionably lessened.

Clyster against the Colic.

TAKE half a pint of common decoction; one ounce of tinctura sacra; one dram of common salt; two ounces of linseed oil. Mix them together.

Starch Clyster.

TAKE four ounces of jelly of starch, and half an ounce of linseed oil; liquify the jelly over a gentle fire, and then mix in the oil. In the dysentery or bloody flux, this clyster may be given after every loose stool, in order to heal the ulcerated intestines, and blunt the sharpness

sharpness of corroding humours. If forty or fifty drops of laudanum are added, it will generally supply the place of the *Astringent Clyster*.

COLLYRIA, or EYE-WATER.

EYE-WATERS are very numerous; almost every person pretending to have some secret preparation for the cure of sore eyes. They are generally much alike, the basis of most of them being either alum, vitriol, or lead. Their effects evidently are, to brace and restore the tone of the parts; hence they are principally of service in slight inflammations, and in that relaxed state of the parts which is induced by obstinate ones.

Though camphor is generally added to these compositions, it can be of little use, as it seldom incorporates properly with the water. Boles, and other earthy substances which do not dissolve in water, are also unfit for this purpose.

Vitriolic Collyrium.

BOIL two drams of white vitriol in two pints of water, till the vitriol is dissolved, and then filter the liquor.

Where the eyes are watery, or inflamed, these solutions of white vitriol are very useful applications: the slighter inflammations will frequently yield to this medicine without any other assistance; in the more obstinate ones, the assistance of bleeding and blistering will be often necessary. When a strong astringent is judged proper, a larger quantity of vitriol may be used.

Collyrium of Alum.

TAKE half a dram of alum; beat it well together with the white of one egg. This is the collyrium of Riverius. It is used in inflammations of the eyes: Let it be spread upon linen, and applied to the eyes; but it must not be kept on above three or four hours at a time.

Collyrium of Lead.

DISSOLVE four grains of sugar of lead, and the same quantity of crude sal ammoniac, in eight ounces of
of

of common water. Forty or fifty drops of laudanum may be occasionally added to this collyrium.

Goulard's Collyrium of Lead.

THIS is made by putting twenty-five drops of Goulard's Extract of Saturn, to eight ounces of water, and adding a tea-spoonful of brandy.

Collyrium of Water and Brandy.

COMMON water and brandy, without the addition of any thing else, will, in many cases, answer very well as a collyrium. The proportion may be, an ounce of brandy to five or six ounces of water. Bathe the eyes with it night and morning.

CONFECTIONS, CONSERVES, and PRESERVES.

THERE are several electuaries which bear the name of confections; some of which, in the medical language, are corroborative, and others purgative. Many of them are still to be found in our dispensatories. But as most of their intentions may be as effectually answered by a few glasses of wine, or grains of opium, this class of medicines deserve but little attention.

Cordial Confection.

TAKE three ounces of conserve of rosemary flowers; one ounce and a half of candied nutmeg; six drams of candid ginger; half an ounce of compound powder of contrayerva; fifteen drops of oil of cinnamon; and syrup of orange-peel, as much as is sufficient. Mix them into an electuary.

Japonic Confection.

TAKE of Japan earth, three ounces; tormentil root, nutmeg, olibanum, of each two ounces; opium, a dram and a half, dissolved in a proper quantity of Lisbon wine; fourteen ounces of simple syrup, and fourteen ounces of conserve of roses. Mix them, and form them into an electuary. This may supply the place of the Diascordium; and the dose is from a scruple to a dram.

Conserve

Conservees are a kind of dry confections made with sugar, pastes of flowers, fruits, &c. The apothecaries, under the title of *conservees*, comprehend all sorts of confections, both dry and liquid; whether of flowers, fruits, seeds, roots, barks, leaves, &c. They possess very few medicinal properties, and may with more propriety be classed among sweetmeats than medicines. It must, however, be acknowledged that they are sometimes found useful, for reducing into boluses or pills some of the more ponderous powders, as the preparations of iron, mercury, and tin.

Conservees are composed of fresh vegetables and sugar, beaten together into one mass. In preparing these vegetables, the leaves must be freed from their stalks; the flowers from their cups, and the yellow part of orange-peel taken off with a rasp. They should then be pounded in a marble mortar, with a wooden pestle, into a smooth mass; next add, by degrees, thrice their weight of fine sugar; and the beating should be continued till the whole is uniformly mixed. Some add only twice the weight of sugar to the conserve.

Conserve of Sloes.

BOIL the sloes gently in water, observing to take them out before they burst: then express the juice, and beat it up with three times its weight of fine sugar. In relaxations of the *uvula*, and glands of the throat, this makes an excellent gargle.

Conserve of Red Roses.

TAKE a pound of red rose-buds, clear them of their heels, and beat them well in a mortar; adding, gradually, two pounds of double refined sugar, in powder. Of these make a conserve.

In this manner are prepared the conservees of orange-peel, rosemary flowers, leaves of wood-sorrel, &c.

The conserve of roses is a most excellent preparation; a dram or two of it, dissolved in warm milk, is recommended as a gentle astringent in weakness of the stomach, and also in phthical coughs, and spitting of blood. To have any considerable effect it must, however, be taken in larger quantities.

Preserves are made by sleeping or boiling fresh vegetables, first in water, and afterwards in syrup, or a solution of sugar. The article may either be preserved moist in the syrup, or taken out and dried, that the sugar may candy upon it. The last is the most common method.

Candied Eringo Roots.

BOIL them in water, till the rind will easily peel off; when peeled, slit them through the middle, take out the pith, and wash them three or four times in cold water. For every pound of the roots so prepared, take two pounds of double refined sugar, which is to be dissolved in a proper quantity of water, and set over the fire: as soon as the liquor begins to boil, put in the roots, and continue the boiling till they are soft.

Candied Orange Peel.

TAKE Seville-Orange peel, and soak it in several waters till it has lost its bitterness: then boil it in a solution of double refined sugar till it becomes tender and transparent.

In the same manner candied lemon-peel should be prepared.

More on this subject would seem calculated for the confectioner, rather than the medical practitioner.

DECOCTIONS, and INFUSIONS.

DECOCTION is the act of boiling any substance in water, to extract the virtues of it for some medicinal purpose; or the water itself in which the substance has been boiled.

Infusion may be made in watery, spirituous, oily, acid, or alkaline liquors, according to the nature of the matters to be infused, and of the principles intended to be extracted. It is nevertheless practised upon vegetable matters only; and almost always for the preparation of remedies, which are also called *infusions*. Aromatic plants, and other odoriferous vegetable matters, are generally infused, when their odoriferous principle is to be preserved, in which their virtue consists, and which

which is at the same time so volatile as to be dissipated and lost by the heat of boiling. To preserve still better these volatile principles, the smallest heat requisite for the extraction ought to be employed.

Though most medicines yield their virtues to water, as well by infusion as decoction, or boiling, yet the latter is often necessary, as it saves time, and does in a few minutes, what the other would require hours, and sometimes days, to perform.

Decoction is mostly employed about balsamics, detergents, and cathartics; for it is not so proper for cephalics, as it exhales the more volatile parts, in which the virtues of all those ingredients consist. The harder bodies, as woods, dried roots, &c. require most boiling; but herbs and seeds need only be scalded. Those infusions made by the spirit of wine, are particularly called tinctures, especially in pharmacy. The medicines of this class are intended for immediate use.

Decoction of the Woods.

TAKE of gum guaiacum shavings, three ounces; raisins of the sun, stoned, two ounces; saffrafras wood, shaved, one ounce; liquorice sliced, half an ounce; water, one gallon.

Boil the guaiacum and raisins with the water, over a gentle fire, till half be consumed; adding, towards the end, the saffrafras and liquorice. Strain out the liquor, and, after letting it settle for some time, pour off the clear from the dregs.

This decoction, if duly continued, will do great service in some cutaneous diseases, foulness of the blood and juices, and some disorders of the breast; particularly in cold phlegmatic habits. It may be taken by itself, in the quantity of a quarter of a pint, two or three times a-day, or used as an assistant in a course of mercurial or antimonial alteratives; the patient, in either case, keeping warm, in order to promote the operation of the medicine.

Decoction of Logwood.

TAKE three ounces of the shavings or chips of Logwood, and boil them in two quarts of water, till half the liquor is consumed. Two or three ounces of simple cinnamon water may be occasionally added to this decoction.

Peruvian Decoction.

BOIL two ounces of Peruvian bark, in powder, in three pints of water, till one pint of the liquor is wasted; and then strain off the remaining decoction for use.

Decoction for the Jaundice.

TAKE of celandine, roots and leaves, turmeric madder, each one ounce; millepedes, two hundred; water, three pints. Boil the celandine, turmeric, and madder, in the water, till only a quart remains after straining; then, having pressed out the juice of the millepedes, add this to the decoction when grown cold.

The ingredients of which this decoction is composed have been long considered as specifics for the cure of the disease expressed in the title. This medicine, though rather unpleasant, is well calculated to answer many useful purposes, if well managed, and properly assisted. A quarter of a pint may be taken twice a day, or oftener.

Compound Decoction of the Bark.

BOIL three drams of Peruvian bark, and the same quantity of Virginian snake-root, grossly powdered, in a pint of water, till half is consumed. To the strained liquor, add an ounce and a half of aromatic water. Sir John Pringle recommends this as a proper medicine towards the decline of malignant fevers, when the pulse is low, the voice weak, and the head affected with a stupor, but with little delirium. The dose is four spoonfuls every fourth or sixth hour.

Decoction of Sarsaparilla.

TAKE fresh sarsaparilla root, sliced and bruised, two ounces; shavings of guaiacum wood, one ounce; boil these

these over a slow fire, in three quarts of water, till only one quart remains; adding, towards the end, half an ounce of saffra wood, and three drams of liquorice. Strain the decoction for use.

This may either be used as an assistant to a course of mercurial alteratives, or taken after the mercury has been used for some time. It strengthens the stomach, and restores flesh and vigour to habits emaciated by the venereal disease. It may also be taken in the rheumatism and cutaneous disorders proceeding from foulness of the blood and juices. It may be taken from a pint and a half to two quarts in the day.

Another Decoction of Sarsaparilla.

THIS decoction is said to be similar to that used by Kennedy, in the cure of the venereal disease, and may supply the place of the Lisbon diet drink.

Take of sarsaparilla, two ounces; liquorice and mezerion root, of each half an ounce; shavings of guaiacum, and saffra wood, of each one ounce; crude antimony, powdered, an ounce and a half. Infuse the whole in four quarts of boiling water for twenty-four hours, then boil them till half the water is wasted. Then strain the decoction.

Astringent Decoction.

TAKE of tormentil root, one ounce; pomegranate peel, plantane leaves, each half an ounce; syrup of dry roses, one ounce; water, three pints. Boil the water with the tormentil, granate-peel, and plantane, till one pint is wasted, adding the cinnamon towards the end. Strain off the decoction, and mix the syrup with it. The title of this decoction sufficiently expresses its virtues. The dose, in fluxes where the morbid matter has been evacuated, and astringency is the only indication, is from one to four ounces three or four times a-day.

Decoction of Seneka.

TAKE of Seneka, rattle-snake root, one ounce; water, a pint and a half; boil till half is wasted, and

strain. This is warmly recommended in the pleurisy, droply, rheumatism, and some obstinate disorders of the skin. Two ounces of this decoction may be taken three or four times a-day, or oftener, if the stomach will bear it.

Diuretic Decoction.

TAKE of parsley or fennel-roots, one ounce; wild carrot-seeds, three drams; pellitory of the wall, half an ounce; raisins, two ounces; nitre, one dram; water, three pints. Boil the water with the roots, seeds, pellitory, and raisins, till there remains only two pints of liquor after straining, in which let the nitre be dissolved.

The Common Decoction.

TAKE one ounce of camomile-flowers; half an ounce of elder-flowers; half an ounce of sweet fennel seeds; and two quarts of water. After boiling them for a short time, strain the decoction.

A medicine equally efficacious may be prepared by infusing the ingredients for some hours in boiling water.

White Decoction.

TAKE two ounces of the purest chalk, in powder; half an ounce of gum arabic; and three pints of water. Boil till the whole is reduced to a quart, and strain the decoction.

This may be very properly administered in acute diseases, attended with, or inclining to a looseness, and where acidities abound in the stomach or bowels. It is an excellent medicine for children, when afflicted with sourness of the stomach, and for persons who are subject to the heart-burn. Sweeten it with sugar, as it is used, and add to it two or three ounces of simple cinnamon water.

An ounce of chalk, powdered, and mixed with a quart of water, will occasionally supply the place of this decoction.

Decoction

Decoction of Althæa.

TAKE three ounces of the roots of marsh-mallows, moderately dried; one ounce of raisins of the sun; and three pints of water. Boil these ingredients together till one third is wasted; then strain the decoction, and let it stand for some time to settle. If the roots are thoroughly dried, they should be boiled till half the water is consumed. In coughs and sharp defluations upon the lungs, this decoction may be used for common drink.

Vulnerary Decoction.

TAKE the herb ground-ivy, plantane leaves, fine sugar, each half an ounce; water, three pints. Boil the herbs in the water till only two pints of strained liquor remain, in which the sugar must be dissolved.

Infusion of the Bark.

TAKE an ounce of the bark in powder; four or five table-spoonfuls of brandy; and a pint of boiling water. Let them infuse for two or three days. This is an excellent preparation of the bark for weak stomachs. In disorders where the corroborating virtues of that medicine are required, a tea-cup full of it may be taken two or three times a-day.

Infusion of Rhubarb.

TAKE of rhubarb, sliced, one ounce; cochineal, one scruple; boiling water, one pint. Infuse them for a night, and to the strained liquor add an ounce of spirituous cinnamon water.

Bitter Infusion.

TAKE tops of the lesser centaury and camomile-flowers, of each half an ounce; yellow rind of lemon and orange-peel, without any of the inner or white part, of each two drams. After cutting them in small pieces, infuse them in a quart of boiling water.

In cases of indigestion, weakness of the stomach, or want of appetite, a tea-cup full of this infusion may be taken twice or three times a-day.

Infusion

Infusion of Carduus.

TAKE an ounce of the dried leaves of carduus benedictus, and infuse, or steep it in a pint of common water for six hours, without heat; then filter the liquor through paper:

This infusion will be found highly useful in weakness of the stomach, where the common bitters do not agree. It may be flavoured with cinnamon, &c.

Infusion of Senna with Lemon.

TAKE an ounce and a half of senna; an ounce of yellow rind of lemon-peel, fresh; one ounce of lemon-juice; and one pint of boiling water. Moderate them together, and, when cold, strain off the infusion. This is a very pleasant and efficacious purge: the dose is from two to four ounces.

Paralytic Infusion.

TAKE four ounces of horse-radish root, shaved; four ounces of mustard-seed, bruised; one ounce of the outer rind of orange-peel. Infuse them in two quarts of boiling water, in a close vessel, for twenty-four hours. In paralytic complaints, a tea-cupful of this medicine may be taken three or four times a-day.

Infusion of Cinnamon.

TAKE two ounces of powdered cinnamon, and a quart of boiling water; infuse them, in a close vessel, in a moderate heat, for half an hour, and then filter the liquor. This infusion is agreeably impregnated with the flavour and warmth of the spice, and may occasionally supply the place of the simple cinnamon water.

Alkaline Infusion.

TAKE half an ounce of salt of tartar; half a dram of saffron; two ounces of liquorice-root; and three pints of boiling water. Let them stand together in a warm place for eight or ten hours, and then strain out the liquor for use. This infusion is of service in a sizziness or viscosity of the blood and juices, the consequence

of an obstructed perspiration, and frequently the origin of inflammatory distempers: it thins and attenuates thick humours, and promotes the natural secretions. It is to be taken warm, in small quantities at a time, and frequently repeated.

Infusion of Linseed.

TAKE half an ounce of liquorice-root, sliced; two spoonfuls of linseed; and three pints of boiling water. After letting them stand to infuse by the fire for some hours, strain off the liquor.

By adding an ounce of the leaves of coltsfoot to these ingredients, it will then become the *Pectoral Infusion*. Both these are emollient mucilaginous liquors, and may be taken with advantage, as common drink, in difficulties of making water; and in coughs and other complaints of the breast.

Antiscorbutic Infusion.

TAKE of buckbean leaves, two ounces; Curassari oranges, half an ounce; compound horse-radish water, four ounces; common water, two quarts. Let the common water, boiling, be poured on the buckbean and orange, and let it stand in a close vessel for one night; then strain out the liquor, and add to it the horse-radish water.

This infusion is a very useful antiscorbutic; buckbean appears, from experience to be a very efficacious herb in this intention: the aromatic article, here joined to it, takes off much of its ill flavour, and at the same time promotes its virtue. A quarter of a pint of the liquor may be taken three or four times a-day.

Cephalic Infusion.

TAKE two ounces of wild valerian root; half an ounce of rosemary or sage; four ounces of aromatic water; and two quarts of common water. Pour the common water boiling, on the herb and root, and let it stand for one night in a close vessel; then strain out the infusion, and add to it the aromatic water. This infusion is good against epileptic disorders, and other such

such affections of the nervous system. The dose is a quarter of a pint, to be taken twice a-day.

Infusion of Tamarinds and Senna.

TAKE one ounce of tamarinds; two drams of senna; and two drams of crystals of tartar. Infuse these ingredients four or five hours in a pint of boiling water; then let the liquor be strained, and add to it an ounce or two of the aromatic tincture. Those who are easily purged may omit either the tamarinds, or the crystals of tartar. This is a pleasant cooling purge. A tea-cupful may be taken every half hour till it operates.

Diuretic Infusion.

TAKE of wormwood leaves dried, half an ounce; salt of tartar, two scruples; compound juniper water, two ounces; common salt, twelve ounces. Pour the common water, boiling, on the wormwood and salt of tartar, and, when cold, strain off the liquor, and mix it with the juniper-water.

This infusion is directed in the obstructions of the viscera, which frequently succeed a long continuance of bilious fevers, or frequent relapses into them, and which generally end in a dropsy, jaundice, or irregular intermittent. The quantity here prescribed is to be taken every day, at three doses, and a purgative occasionally interposed. If intermittent fevers return, after the cure of the other disorders, they are then successfully treated by the bark.

DRAUGHTS.

A DRAUGHT is proper for exhibiting such medicines as are intended to have a speedy operation, and which do not require frequent repetition; as purges, vomits, and a few others, which are to be taken at one dose. Where a medicine is to be often used, it is better to make up a considerable quantity of it at once.

Diuretic Draught.

TAKE two scruples of diuretic salt; two drams of Symp of poppies; an ounce of simple cinnamon water; and

and an ounce of common water. This draught is proper in an obstruction or deficiency of urine.

Anodyne Draught.

TAKE twenty-five drops of liquid laudanum; an ounce of simple cinnamon water; two drams of common syrup. Mix them. In great pain, where bleeding is not necessary, and in great restlessness, this composing draught may be taken, and repeated occasionally.

Anodyne Diuretic Draught.

TAKE of ley of tartar, half a dram; Thebaic tincture, forty drops; peppermint water, one ounce; simple cinnamon water, half an ounce; spirituous cinnamon water, two drams; syrup of marshmallows, one dram. Mix them together.

Sweating Draught.

TAKE two ounces of spirit of Mindererus; five grains of salt of hartshorn; half an ounce of simple cinnamon-water; and half an ounce of syrup of poppies. Mix them together. This draught is found very serviceable in rheumatic complaints and recent colds; but the patient should drink freely of water-gruel, or some other weak diluting liquor.

Vomiting Draught.

TAKE of ipecacuanha in powder, a scruple; of water, an ounce; simple syrup, a dram. Mix them.

If a stronger vomit is required, half a grain, or a grain of emetic tartar may be added.

Persons who do not choose the powder, may take ten drams of the ipecacuanha wine; or half an ounce of the wine, and an equal quantity of the syrup of squills.

Purging Draught.

TAKE an ounce of manna; and three or four drams of soluble tartar, or Rochelle salt. Dissolve these in three ounces of boiling water, and add half an ounce of Jamaica pepper water.

Another.

TAKE of jalap, in powder, a scruple; common water, an ounce; aromatic tincture, six drams. Rub the jalap with twice its weight of sugar, and add to it the other ingredients.

Saline Cathartic Draught.

TAKE of Glauber's cathartic salt, manna, each six drams; boiling water, three ounces; tincture of cardamoms, one dram. Dissolve the salt and manna in the water, and, after straining off the liquor, add to it the tincture of cardamoms.

This is an agreeable saline purgative. Tincture of cardamoms is an excellent addition to liquors of this kind, or to the purging mineral waters, for rendering them acceptable to the stomach.

ELECTUARIES.

ELECTUARY is a form of medicine, composed of powders and other ingredients, incorporated with some conserve, honey, or syrup; and, when taken, to be divided into doses, like boluses. They are indeed generally composed of the lighter powders, mixed with syrup, honey, conserve, or mucilage, into such a consistence that the powders may not separate by keeping, nor the mass prove too stiff or substantial for swallowing. They chiefly receive the milder alterative medicines, &c. such as are not disagreeable to the palate.

Astringent electuaries, and those which have pulps of fruit in them, should not be prepared in large quantities; because the former lose their virtues by being kept in this form, and the latter are apt to ferment.

To extract pulps, it will be necessary to boil unripe fruits, and ripe fruits, if they are dried, in a small quantity of water till they become soft; then press the pulp through a strong hair sieve, or thin cloth, and afterwards boil it to a proper consistence, in an earthen vessel, over a gentle fire, taking care to stir it to prevent the matter from burning. The pulps of ripe and fresh fruits may be pressed out with boiling.

Electuary

Electuary of Cassia.

TAKE of solutive syrup of roses, pulp of Cassia, fresh extracted, each half a pound; manna, two ounces; pulp of tamarinds, one ounce. Grind the manna in a mortar, and, with a gentle heat, dissolve it in the syrup: then add the pulps, and continue to heat till the whole is reduced to a due consistence.

Lenitive Electuary.

TAKE eight ounces of fenna, in fine powder; four ounces of coriander-seed, also in powder; a pound of pulp of tamarinds, and the same quantity of French prunes. Mix the pulps and powders together, and reduce the whole into an electuary with a proper quantity of simple syrup. This electuary is an agreeable laxative; it should be taken two or three times a-day. It is also an agreeable vehicle for administering more active medicines, as jalaps, scammony, &c. It is also a good substitute for the electuary of Cassia.

Pectoral Electuary.

TAKE of the rob of elder-berries, two ounces; spermaceti, dissolved in a sufficient quantity of yolk of eggs, half an ounce; flowers of benzoine, one dram; balsamic syrup, a sufficient quantity to make the other ingredients into an electuary.

This is a very salutary medicine in tickling coughs and common colds, calculated to deaden acrimony, and promote expectoration. The dose should be about the quantity of a small nutmeg two or three times a-day. Taken to the bulk of a large nutmeg, at bed-time, it generally relieves the breast, and tends to procure a salutary sweat in the night.

Electuary for the Dysentery.

TAKE two ounces of the Japonic confection; one ounce of Locatelli's balsam; half an ounce of rhubarb in powder; and a sufficient quantity of syrup of marsh-mallows to make the whole into an electuary. In dysenteries it is often dangerous to administer opiates and astringents, without interposing purgatives. The purge

is here united with such ingredients as render it a very safe and useful medicine for the purpose expressed in the title. A quantity equal in bulk to a nutmeg may be taken two or three times a-day, attention being paid to the symptoms and constitution.

Electuary for the Piles.

TO one ounce of the flowers of sulphur, and half an ounce of cream of tartar, add as much treacle as will be necessary to form the whole into an electuary; and let the patient take a tea-spoonful three or four times a-day.

Electuary for the Palsy.

TO an ounce of powdered mustard-seed, and an equal quantity of conserve of roses, add a sufficient quantity of syrup of ginger to make the whole into an electuary. The dose is a tea-spoonful three or four times a-day.

Electuary for the Rheumatism.

TAKE of conserve of roses, two ounces; cinnabar of antimony, levigated, an ounce and a half; gum guaiacum, in powder, an ounce; syrup of ginger, a proper quantity to make an electuary. In obstinate rheumatisms, unaccompanied with a fever, a tea-spoonful of this electuary, taken twice a day, will be found very efficacious.

Electuary of Scordium, commonly called Diascordium.

TAKE of the species of scordium with opium, any quantity; syrup of meconium, boiled to the consistence of honey, three times as much by weight. Mix the species with the syrup to form an electuary.

Electuary of the Bark.

TAKE three ounces of Peruvian bark, in powder; half an ounce of cascarilla; and a sufficient quantity of syrup of ginger, to make the whole into an electuary. In the cure of obstinate intermitting fevers, the bark is much assisted by the cascarilla. But in hectic habits,

habits, the cascarilla ought to be left out, and its place supplied by three drams of crude sal ammoniac.

Electuary for the Epilepsy.

TAKE an ounce of Peruvian bark, in powder; half an ounce of powdered tin; half an ounce of wild valerian root; and of simple syrup, sufficient to make an electuary.

Electuary for the Gonorrhæa.

THREE ounces of lenitive electuary; two drams of jalap, in powder; and an equal quantity of rhubarb, in powder; nitre, half an ounce; simple syrup, a sufficient quantity to make an electuary. During the inflammation and tension of the urinary passages, accompanying a virulent gonorrhæa, this cooling laxative will be found beneficial. A quantity equal to the size of a nutmeg may be taken of this electuary twice or three times a-day: more or less may occasionally be required just to keep the body gently open.

Cream of tartar, formed into an electuary with simple syrup, will occasionally supply the place of this.

When the inflammation is gone off, the following electuary may be used:

Take two ounces of lenitive electuary; one ounce of balsam of capivi; two drams of gum guaiacum, in powder; the same quantity of rhubarb, in powder; and simple syrup sufficient to make an electuary. The dose is about a dram, or about the bulk of a nutmeg two or three times a-day.

EMETICS.

AN emetic is a medicine that excites vomiting, or that purges the stomach by the mouth. Vomits not only cleanse the stomach, but increase the perspiration, and all the other secretions, which render them of such importance, that they often cure intermittent fevers without the assistance of any other medicine. They also produce excellent effects in slow fevers, where there are no signs of inflammation, and nature wants raising. At the beginning of a putrid fever, they have generally

generally a good effect; but if the fever has gone on for some days, and the symptoms are violent, vomits are not so safe.

In a diarrhæa, or looseness, which proceeds from excess or repletion, a vomit is the proper medicine. It is also serviceable in carrying off a debauch. Half a dram of ipecacuanha will completely answer the purpose.

No medicines are more beneficial in the jaundice than vomits, especially where it is not attended with inflammation. Half a dram of ipecacuanha will be a sufficient dose for an adult.

EMULSIONS.

EMULSIONS are not only used as medicines, but also as vehicles for certain substances, which could not otherwise be properly administered in a liquid form. Thus camphor, pounded with almonds, readily unites with water into an emulsion. Pure oils, resins, balsams; and other similar substances may be managed and qualified to mix with water by the intervention of mucilages.

Emulsion of Spermaceti.

TAKE spermaceti, and mucilage of gum Arabic, of each an equal quantity. Beat them together in a mortar till they form a thickness, which may be diluted with water.

Emulsions of spermaceti, or spermaceti draughts, are frequently prepared by means of yolks of eggs; and the emulsions so prepared are sufficiently uniform. Those, however, which are made in the mucilage, as here directed, are more agreeable in taste, and not liable to become rancid. The mixture of the spermaceti and mucilage may be kept for several days in a state proper for being diluted, by gradual additions of water, into a smooth emulsion.

Common Emulsions.

TAKE an ounce of sweet almonds; a dram of bitter almonds; and a quart of water. Blanch the almonds, and

and beat them up in a marble mortar ; adding the water by little and little ; so as to make an emulsion ; then let it be strained.

Purging Emulsion.

TAKE of sweet almonds, blanched, two drams ; fine sugar, one dram ; gum Arabic, half a dram ; scammony, ten grains ; simple cinnamon-water, one ounce. Dissolve the gum in the cinnamon-water, and, having ground the scammony with almonds and sugar, pour on the liquor by a small quantity at a time ; continuing to grind them together, so as to make an emulsion.

This emulsion is a pleasant and an effectual purgative. It may be prepared with different proportions of the scammony, at pleasure. Other purgative resins, as that of jalap, may be substituted to the scammony ; a proper quantity of any syrup to the sugar ; and to the cinnamon-water, any other simple water that may be more acceptable. Some have employed an infusion of liquorice, which appears to be a very proper addition in these kinds of preparations, as it coincides with the almonds in correcting the irritating power of the purgative materials.

Emulsion of Gum Ammoniac.

TAKE two drams of gum ammoniac, and eight ounces of water. Grind the gum by the water poured upon it, by little and little, till it is dissolved.

This emulsion thins and attenuates tough viscid phlegm, and promotes expectoration. In obstinate coughs, two ounces of the syrup of poppies may be added to it. Two table-spoonfuls may be taken three or four times a-day.

EXTRACTS.

EXTRACTS are the purest and finest parts of vegetables, or other substances, separated from the coarser, by boiling them in water, and evaporating the strained decoction to a due consistence. Thus some of the more active parts of plants are freed from the useless, indissoluble, earthy matter, which makes the larger share of their bulk.

But

But water is not the only menstruum used in preparing extracts; sometimes it is joined with spirits, and sometimes rectified spirit alone is employed for that purpose.

Extracts are prepared from a variety of different drugs, as the bark, gentian, jalap, opium, &c. But as they require a tedious operation, it will be more convenient for a private practitioner to purchase them from a druggist, than to prepare them himself.

FOMENTATIONS.

THE intention of these is either to ease pain, by taking off tension or spasm, or to brace and restore the tone and vigour of those parts to which they are applied. The first of these intentions may generally be answered by warm water, and the second by cold. Certain substances, however, are usually added to water, in order to heighten its effects, as anodynes, aromatics, astringents, &c.

The warm fomentation should be applied as warm as the patient can bear it, and in the following manner: Two flannel cloths are dipped into the heated liquor, one of which is wrung as dry as the necessary speed will admit, then immediately applied to the part affected: it lies on till the heat begins to go off, and the other is in readiness to apply at the instant in which the first is removed; thus these flannels are alternately applied, so as to keep the affected part constantly supplied with them warm. This is continued fifteen or twenty minutes, and repeated two or three times a-day. Every intention of relaxing and soothing by fomentations, may be answered as well by warm water alone, as when the whole tribe of emollients are boiled in it; but when discutients or antiseptics are required, such ingredients must be called in as are adapted to that end. The degree of heat should never exceed that of producing a pleasing sensation: great heat produces effects very opposite to that intended by the use of fomentations.

Fomentations have different names, according to the preparations of which they consist, and the uses to which

which they are applied. Thus the *anodyne fomentation*, used for relieving acute pains, is composed of white poppy-heads, two ounces; elder flowers, half an ounce; which are boiled in three pints of water till one pint is evaporated, and then the liquor is strained out.

Aromatic Fomentation.

THE aromatic fomentation is prepared by boiling half an ounce of Jamaica pepper in a pint of red wine for a little while, and straining off the liquor.

This is used both for external and internal complaints: colics and disorders of the bowels are often abated by fomenting the abdomen and region of the stomach with this warm liquor.

Common Fomentation.

THE common fomentation is made by slightly boiling the dried tops of wormwood and camomile-flowers, of each two ounces, in two quarts of water, and pouring off the liquor; to which may be added such quantities of brandy, or spirit of wine as the particular case may require; but these are not always necessary.

Emollient Fomentation.

THE emollient fomentation consists of camomile-flowers, one ounce; elder flowers, and sweet-fennel seeds, of each half an ounce; boiled for a little while in two quarts of water, and strained, with the addition of spirit of wine, &c.

Strengthening Fomentation.

THIS fomentation is prepared of oak-bark, one ounce; granate-peel, half an ounce; alum, two drams; and smith's forge-water, three pints. The water is boiled with the bark and peel till one third is consumed; and in the remaining decoction, strained, the alum is to be dissolved. This astringent liquor may be used to foment weak parts, and also applied internally.

There are also fomentations made by boiling certain drugs in linen bags, and then applying them, bags and all, on the part. There are likewise certain dry

fomentations, being bags, filled with medicines, but not boiled, only sometimes sprinkled with a little wine or brandy.

GARGLES.

GARGLES are a liquid form of remedy for disorders in the mouth, gums, throat, &c. They are composed of honey, salt, syrups, spirits, vinegar, waters, and decoctions, and produce their effects by cleansing and lubricating the parts. Gargles are particularly useful in fevers and sore throats; and they have this advantage above many medicines, that they are easily procured and prepared. In sore throats a gargle will sometimes remove the disorder; and, in fevers, few things are more refreshing or agreeable to the patient than to have his mouth often washed with some soft detergent gargle.

An useful gargle for softening and cleansing the mouth, may be made with a little barley-water and honey, with as much vinegar as will give it an agreeable sharpness.

Gargles are most effectual when injected with a syringe. They bear different appellations, according to the uses to which they are applied.

Attenuating Gargle.

THIS is made by mixing six ounces of water with one ounce of honey, and a dram and a half of nitre. This cooling gargle may be used either in the inflammatory quinsy, or in fevers, for cleaning the tongue and fauces.

A good gargle for this purple may be made with strong sage-tea, sweetened with honey, and sharpened with vinegar.

Common Gargle.

THIS is made by mixing six ounces of rose water with half an ounce of syrup of clove July flowers; with a sufficient quantity of spirit of vitriol to give it an agreeable sharpness. This cleanses the tongue and fauces, and serves also for a gentle repellent: and sometimes a slight quinsy is removed by it.

Emollient

Emollient Gargle.

THIS gargle is made by boiling an ounce of marsh-mallow roots, and two or three figs, in a quart of water, till near one half of it be consumed, and then straining out the liquor. If an ounce of honey, and half an ounce of spirit of sal ammoniac, be added to the above, it will then be an excellent *attenuating gargle*.

This gargle is beneficial in fevers, when the tongue and fauces are rough and parched, to soften these parts, and promote the discharge of the saliva.

Sir John Pringle recommends a decoction of figs in milk and water, with the addition of sal ammoniac, as an useful gargle in the inflammatory quinsy, or strangulation of the fauces.

Detergent Gargle.

DETERGENT gargle, prepared by mixing a pint of the emollient gargle with an ounce of tincture of myrrh, and two ounces of honey, serves to cleanse excoriations, and promote the excretion or discharge of tough viscid saliva.

JULEPS.

JULEPS are generally understood to be agreeable mixtures, designed as vehicles for medicines of greater efficacy, or to be drank after them, or to be taken occasionally as an auxiliary. The basis of Juleps is generally common water, or some simple distilled water, with one-third or one-fourth its quantity of distilled spirituous water, and as much sugar or syrup as will render the mixture agreeable. This is sharpened with vegetable or mineral acids, or impregnated with other medicines suitable to the intention; care being taken that these additions will not render the compound offensive to the eye, or disagreeable to the palate.

A mixture, more strictly so called, receives more efficacious materials; more regard being had, in juleps, to the medicinal intention, than to the sight or taste of the compound. There is, indeed, no precise distinction between the two; the same composition being often

called by one person a julep, and by another a mixture; though in general, few would give the name of julep to a very disagreeable liquor, or that of mixture to a very pleasant one.

A draught differs from a julep or mixture, only in being prescribed in less quantity, the whole being intended for one dose.

Cordial Julep.

TAKE four ounces of simple cinnamon-water; two ounces of Jamaica-pepper; two drams of volatile aromatic spirit; two drams of compound spirit of lavender; and an ounce of syrup of orange-peel. Mix them. The dose is two spoonfuls, three or four times a day, in disorders accompanied with great weakness and depression of spirits.

Diaphoretic Julep.

TAKE of alexeterial-water, four ounces; spirit of mindererus, two ounces; salt of hartshorn, ten grains; white sugar, six drams. Mix them for a julep.

This composition is a very powerful sudorific, and answers its intention more effectually, and with greater certainty than many others calculated for the same purpose. Where a copious sweat is to be excited, as in rheumatic diseases, two spoonfuls are to be taken warm in bed every hour, or two hours, till the sweat breaks out: if warm diluting liquors are not afterwards sufficient to keep it up, the same medicine is to be occasionally repeated.

Camphorated Julep.

TAKE of camphor, one dram; gum-arabic, half an ounce; double-refined sugar, an ounce; vinegar, a pint. Grind the camphor with a few drops of rectified spirit of wine, till it grows soft; then add the gum, (having first reduced it to a mucilage with equally its quantity of water) and rub them together till they are perfectly united. To this mixture add, by a small quantity at a time, the vinegar with the sugar dissolved in it, still continuing the trituration or pounding,

In

In hysterical and other complaints, where camphor is proper, a spoonful or two of this julep may be taken as often as the stomach will bear it.

A Cooling Julep.

TAKE of Rhenish wine, five ounces; damask rose-water, two ounces; Seville-orange juice, and syrup of violets, each six drams.

Expectorating Julep.

WITH six ounces of the emulsion of gum-ammoniac, mix two ounces of syrup of squills. In asthmas, coughs, and obstructions of the breast, two table spoonfuls of this julep may be taken every three or four hours.

Vomiting Julep.

LET four grains of emetic tartar be dissolved in eight ounces of water, and add to it half an ounce of the syrup of clove July flowers. In the beginning of fevers, where there is no topical or local inflammation, a table-spoonful of this julep may be taken every quarter of an hour till it operates. Antimonial vomits not only evacuate the contents of the stomach, but likewise serve to promote the different excretions; and, in fevers, are found to have nearly the same effects as Doctor James's Powder.

Saline Julep.

LET two drams of salt of tartar be dissolved in three ounces of fresh lemon juice, strained. When the effervescence, or fermentation is over, add two ounces of mint-water, two ounces of common water, and one ounce of simple syrup.

This julep removes sickness at the stomach, relieves vomiting, promotes perspiration, and may be serviceable in fevers, especially of the inflammatory kind.

Musk Julep.

HAVING rubbed half a dram of musk well together with half an ounce of sugar, add to it, by degrees, of simple cinnamon and peppermint-water, each two ounces;

ounces ; and of the volatile aromatic spirit, two drams. In the low state of nervous fevers, hiccups, convulsions, and other spasmodic affections, two table spoonfuls of this julep may be taken every two or three hours.

MIXTURES.

A MIXTURE receives into its composition not only salts, extracts, and other substances dissoluble in water, but also earths, powders, and such substances as cannot be dissolved. A mixture is seldom an agreeable medicine : it is, however, necessary, as many persons can take a mixture, who cannot swallow a bolus or an electuary : besides, it is well known that some medicines act better in this form than in any other.

Simple mixture consists only in the simple opposition or fitness of parts of different substances to each other. Thus, when powders of different kinds are rubbed together, the mixture is only simple, and each of the powders retains its particular characters. In like manner, when oil and water are mixed together, though the parts of both are confounded, so that the liquor may appear to be of one kind, we cannot say that there is any more than a simple opposition of the parts, as the oil and water may very easily be again separated from each other. But the case is very different when substances are chymically mixed ; for then one or both assume new properties, and can by no means be discovered in their proper form without a particular chemical process adapted to this purpose.

Valerian Mixture.

TAKE of simple peppermint-water, twelve ounces ; wild valerian root, in powder, one ounce ; compound spirit of lavender, half an ounce ; syrup of orange-peel, one ounce. Mix them together.

Wild valerian root, one of the principal medicines in epilepsies and vertiges, seems to answer better when thus exhibited in substance, than if given in form of tincture or infusion. The liquors here joined to it excellently coincide with, and by their warmth and pungency greatly

greatly improve its virtues. Two spoonfuls of the mixture may be taken twice or thrice a day.

Astringent Mixture.

TAKE three ounces of simple cinnamon-water ; three ounces of common water ; an ounce and a half of spirituous cinnamon-water ; and half an ounce of japonic confection. Mix them.

In dysenteries which have not been of long standing, after the necessary evacuations, a spoonful or two of this mixture may be taken every four hours, interposing every second or third day a dose of rhubarb.

Cordial Mixture.

TAKE four ounces of simple cinnamon-water ; two ounces of spirituous cinnamon-water ; one scruple of extract of saffron ; six drams of confection of kermes. Mix them together. In great languors and depressions, a spoonful of this rich cordial mixture may be taken every half hour.

Diuretic Mixture.

TAKE five ounces of mint-water ; six drams of vinegar of squills ; half an ounce of sweet spirit of nitre ; an ounce and a half of syrup of ginger. Mix them. In obstructions of the urinary passages, take two spoonfuls twice or thrice a day.

Squill Mixture.

TAKE one ounce of vinegar of squills ; five ounces of simple cinnamon-water ; an ounce and a half of syrup of marshmallows. Mix them. A table-spoonful of this mixture may be taken often. It promotes expectation, and the secretion of urine, and is serviceable in asthmatic and dropical habits.

Laxative Absorbent Mixture.

RUB a dram of magnesia alba in a mortar, with ten grains of the best Turkey rhubarb ; and add three ounces of common water ; simple cinnamon-water, and syrup of sugar, of each one ounce.

Most

Most of the diseases of infants being accompanied with acidities, this absorbent mixture may either be given with a view to correct these, or to open the body. A table spoonful may be taken three times a day. Half that quantity will be sufficient for a very young child.

When it is intended to purge, increase the dose, or the quantity of rhubarb.

Saline Mixture.

TAKE a dram of the salt of tartar, and dissolve it in four ounces of boiling water; when cold, drop into it spirit of vitriol till the effervescence or fermentation ceases; then add two ounces of peppermint-water, and one ounce of simple syrup. Where fresh lemons cannot be procured, this mixture may occasionally be used instead of the saline julep.

Mixture against the Phthisis.

MIX one grain of Thebaic extract with half a dram of conserve of roses. Form them into a bolus.

OINTMENTS, CERATES, AND LINIMENTS.

WHAT are denominated ointments, liniments, and cerates, differ from plasters little otherwise than in consistence. Any of the officinal plasters, diluted with so much oil as will reduce it to the thickness of stiff honey, forms an ointment: by farther increasing the oil, it becomes a liniment.

Though ointments do not absolutely cure wounds and sores, they serve to defend them from the external air, and to retain such substances as may be necessary for drying, cleansing, and destroying proud flesh.

Yellow Basilicum Ointment.

TAKE of oil of olive, one pint; yellow wax, yellow resin, Burgundy pitch, each one pound; turpentine, three ounces. Melt the wax, resin, and pitch, with the oil, over a gentle fire, then take them from the fire, add the turpentine, and, while the mixture remains hot, strain it.

This is used for cleansing, digesting, and healing wounds and ulcers.

Or

Or,

TAKE of yellow wax, white resin, and frankincense, each a quarter of a pound; melt them together over a gentle fire, and add a pound of hogs' lard, prepared. Let the ointment be strained while it is warm.

Ointment against the Itch.

TAKE of sulphur, one ounce; white hellebore-root, in powder or crude sal ammoniac, two drams; hogs' lard, two ounces. Mix them, and form them into an ointment.

Sulphur is a certain remedy for the itch, more safe and efficacious than mercury; for, as Dr. Pringle observes, unless a mercurial unction was to touch every part of the skin, there can be no certainty of success; whereas, by a sulphureous one, a cure may be obtained by only partial unction; the animalcula, which occasion this disorder, being, like other insects, killed by the sulphureous streams, which exhale the heat of the body. As to the internal use of mercury, which some have pronounced a specific, there are several instances of men undergoing a complete salivation for the cure of the lues venerea, and without being freed from the itch.

The quantity of ointment, above directed, serves for four unctions: the patient is to be rubbed every night; but to prevent any disorder that may arise from stopping too many pores at once, a fourth part of the body is to be rubbed at one time. Though the itch may thus be cured by one pot of ointment, it will be proper to renew the application, and to touch the parts most affected for a few nights longer, till a second quantity also is exhausted; and in the worst cases to add the internal use of sulphur, not with a view to purify the blood, but to diffuse the streams more certainly through the skin; there being reason to believe, that the animalcula may sometimes lie too deep to be thoroughly destroyed by external applications.

Dr. Buchan speaks very highly of the following

Ointment of Sulphur.

TAKE of hogs' lard, prepared, four ounces; flowers of sulphur, an ounce and a half; crude sal ammoniac, two drams; essence of lemon, ten or twelve drops. Make them into an ointment.. This ointment, (says the Doctor) rubbed upon the parts affected, will generally cure the itch. It is both the *safest* and *best* application for that purpose, and, when taken in this way, has no disagreeable smell.

Ointment of Calamine.

TAKE of olive-oil, a pint and a half; white wax, and calamine stone, levigated, of each half a pound. Let the calamine stone, reduced into a fine powder, be rubbed with some part of the oil, and afterwards added to the rest of the oil and wax, which must be previously melted together, continually stirring them till quite cold.

This ointment is very generally known by the name of *Turner's Cerate*, and is an excellent application in burns and excoriations, from whatever cause.

Emollient Ointment.

TAKE two pounds of palm oil; a pint and a half of olive oil; half a pound of yellow wax; and a quarter of a pound of Venice turpentine. Having melted the wax in the oils over a gentle fire, mix in the turpentine, and strain the ointment.

This ointment may be used for anointing inflamed parts, &c. and may supply the place of *Althæa Ointment*.

Ointment for the Eyes.

TAKE four ounces of hogs' lard, prepared; two drams of white wax; and an ounce of tutty, prepared; melt the wax with the lard, over a gentle fire, and then sprinkle in the tutty, continually stirring them till the ointment is cold.

To render this ointment more efficacious, and of a better consistence, let three drams of camphor be rubbed up with a little oil, and carefully mixed with it.

Another.

Another.

TAKE of camphor, and calamine stone, levigated, each six drams; verdegrise, well prepared, two drams; hogs' lard and mutton suet, prepared, of each two ounces. Rub the camphor well with the powder; afterwards mix in the lard and suet, continuing to stir and blend the materials till they are perfectly united.

Though this ointment has been long esteemed for diseases of the eyes, it must be used with caution when the eyes are much inflamed, or very tender.

Mercurial Ointment.

BEAT two ounces of hogs' lard, and one ounce of quicksilver together, till the quicksilver disappears. It may also be made with two, three, or more times the quantity of quicksilver. Though this is the most simple of the mercurial ointments, it is perhaps as efficacious as any of them.

Another Mercurial Ointment.

TAKE two ounces of quicksilver; three ounces of hogs' lard; one ounce of mutton suet. Rub the quicksilver with an ounce of the hogs' lard in a warm mortar, till the globules are perfectly extinguished; then rub it up with the rest of the lard and suet, previously melted together. The principal intention of this ointment is to convey mercury into the body, by being rubbed upon the skin.

Issue Ointment.

TAKE half an ounce of Spanish flies, finely powdered, and mix it with six ounces of yellow basilicum ointment. This ointment is principally intended for dressing blisters, in order to keep them open during pleasure.

Palsy Ointment.

TAKE of hog's lard, and oil of bays, of each four ounces; strong spirit of vitriol, one ounce. Mix them, and make them into an ointment. This irritating composition is applied to numbed or paralytic limbs: it soon reddens and inflames the skin, and when this

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effect is produced, must be taken off; after which the part is to be anointed with any emollient unguent.

White Ointment.

TAKE one pint of olive-oil; three ounces of white wax; and three ounces of spermaceti. Melt them with a gentle heat, and continue stirring them together till they are cold.

The *White Camphorated Ointment* is made by adding to the above two drams of camphor, previously rubbed with a small quantity of oil.

Ointment of Lead.

TAKE half a pint of olive oil; two ounces of white wax; three drams of sugar of lead. Let the sugar of lead, reduced into a fine powder, be rubbed up with some part of the oil, and afterwards added to the other ingredients, previously melted together, continually stirring them till they are quite cold. This cooling and gently astringent ointment may be used in all cases where the intention is to dry and skin over the part, as in scalding, &c.

White Liniment.

THIS is made in the same manner, and of the same materials as the white ointment, only leaving out two thirds of the wax. This liniment may be applied in cases of excoriation, where, on account of the largeness of the surface, the ointments with lead or calamine might be improper.

Volatile Liniment.

SHAKE together an ounce of Florence oil, and half an ounce of spirit of hartshorn. Where the patient's skin is able to bear it, this liniment will be more efficacious if made of equal parts of the spirit and oil.

It is observed by Sir John Pringle, that, in the inflammatory quinsy, a piece of flannel moistened with this liniment, applied to the throat, and renewed every four or five hours, is one of the most efficacious remedies; and that it seldom fails, after bleeding, either to lessen or carry off the complaint.

Anodyne

Anodyne Liniment.

TAKE of nerve ointment, three ounces; balsam of turpentine, one ounce. Mix them together.

Liniment for the Piles.

MIX two ounces of emollient ointment, and half an ounce of liquid laudanum, with the yolk of an egg. Let them be well worked together.

Camphorated Oil.

RUB an ounce of camphor, with two ounces of Florence oil in a mortar, till the camphor is entirely dissolved. This liniment may be used in obstinate rheumatisms, and in some other cases accompanied with extreme pain and tension of the parts.

White Cerate.

TAKE a quarter of a pint of olive-oil; four ounces of white wax; half an ounce of spermaceti. Liquefy them all together, and continue stirring till the cerate is cold.

PILLS.

MEDICINES of a disagreeable taste or smell, which operate in a small dose, are most commodiously exhibited in the form of pills. No medicine, however, that is intended to operate quickly, should be made into pills, as they often lie for a considerable time on the stomach before they are dissolved, so as to produce any effect.

Strengthening Pills.

TAKE half an ounce of the soft extract of the bark, and the same quantity of the salt of steel. Make into pills. In disorders arising from excessive debility, or relaxation of the solids, two of these pills may be taken three times a-day.

Or,

TAKE of hard extract of Peruvian bark, one dram; salt of steel, ten grains; oil of cinnamon, five drops; balsam of Peru, as much as will make them into a mass.

mass. In a lax state of the fibres, debilities of the nervous system, and some decays of the constitution, this composition is an effectual strengthener and restorative: if the quantity above prescribed is made into twenty pills, one or two of them may be taken for a dose, and repeated twice a-day.

Composing Pill.

TAKE ten grains of purified opium, and half a dram of Castile soap. Beat them together, and make twenty pills of the mass. When a quieting draught will not sit upon the stomach, two or three of these pills may be occasionally taken.

Oliban Pills.

TAKE two ounces of olibanum; one ounce of myrrh; five drams of opium; two drams of balsam of Peru; and a sufficient quantity of common syrup. Mix them into a mass, which supplies the place of Storax pills.

Fætid Pills.

TAKE of assafœtida, and Russia castor, each one dram and a half; camphor, half a dram; oil of hartshorn, twenty-four drops. Beat the camphor with the assafœtida, then add the castor, and oil of hartshorn, and make the whole into a mass.

Or,

MIX half an ounce of assafœtida with as much simple syrup, as is necessary to form it into pills. When it is proper to keep the body open, rhubarb, aloes, or jalap may be occasionally added to the above mass.

In hysteric complaints, four or five pills, of a common size, may be taken two or three times a-day. They may also be beneficial to persons afflicted with the asthma.

Pills of Scammony, with Aloes.

TAKE of succotrine aloes, one dram; aromatic spices, half a dram; scammony, one scruple; soft extract of liquorice, a sufficient quantity to reduce them in a mass of proper consistence.

This

This warm purgative is useful for removing the crudities, &c. after a surfeit or debauch, and for preventing gouty and other complaints incident to those who live high. Make the quantity above prescribed into thirty pills, of which five or six may be taken for a dose.

Mercurial Pill.

TAKE of purified quicksilver and honey, each half an ounce; rub them together in a mortar till the globules of mercury are perfectly extinguished; then add two drams of Castile soap; and a sufficient quantity of powder of liquorice, or crumb of bread, to make the mass of a proper consistence for pills.

If stronger mercurial pills are required, the quantity of quicksilver may be increased or doubled.

The dose must be regulated according to the intention. As an alterant, two or three may be taken every day. Four or five will be necessary to raise a salivation.

Mercurial Sublimate Pill.

DISSOLVE fifteen grains of the corrosive sublimate of mercury in two drams of the saturated solution of crude sal ammoniac; make it into a paste in a glass mortar, with a sufficient quantity of the crumb of bread. Of this mass make one hundred and twenty pills.

This pill has not only been found efficacious in curing the venereal disease, but also in killing and expelling worms. For the venereal disease, four of these pills may be taken twice a-day; as an alterant three; and for worms two.

Tar Pills.

MIX any quantity of tar with as much powdered elecampane-root as will reduce it to a proper consistence for being formed into pills. The powder here mixed with the tar, though not possessed of any great virtue, is nevertheless a very useful addition; not only for procuring a due consistence for taking, but also as it divides the resinous texture of the tar, and thus contributes

tributes to promote its solution by the animal juices. In the Edinburgh Infirmary, half a dram of the mass, made into middle-sized pills, is given every morning and evening, in disorders of the breast, scurvy, &c.

Pills for the Jaundice.

TAKE a dram of Castile soap, a dram of succotrine aloes, and a dram of rhubarb; and make them into pills with a sufficient quantity of syrup or mucilage.

These pills, with the assistance of a proper diet, will often cure the jaundice. Five or six of them may be taken twice a-day, more or less, as is necessary to keep the body open. Now and then, during their use, it will be proper to interpose a vomit of ipecacuanha or tartar emetic.

Spermaceti Pills.

TAKE of spermaceti, one dram; white sugar-candy in powder, two drams; balsamic syrup, a sufficient quantity.

Grind the spermaceti with the sugar, till they are perfectly mixed; then, adding the syrup, rub them with a warm pestle into an uniform mass.

When spermaceti cannot be commodiously exhibited in any other form, three or four moderate sized pills, made from this mass, may be taken two or three times a-day, in erosions or wastings of the viscera, by humours, acrimonious tickling coughs, and other like disorders.

Squill Pills.

TAKE a dram and a half of the powder of dried squills; three drams of gum ammoniac, in powder; three drams of cardamom seeds, in powder, and a sufficient quantity of simple syrup. In dropical and asthmatic complaints, two or three of these pills may be taken twice a-day, or oftener, if the stomach will bear them.

PLASTERS.

PLASTERS are principally composed of oily and unctuous substances united with powders, into such

such a consistence that the compound may remain firm in the cold, without sticking to the fingers: that it may be soft and pliable in a small heat; and that by the warmth of the human body it be so tenacious as readily to adhere both to the part to which it is applied, and to the substance on which it is spread.

There should, however, be a difference in the consistence of plasters, according to the purposes they are intended to answer: thus, such as are applied to the breasts or stomach ought to be soft and yielding; while those intended for the limbs should be firm and adhesive.

Some have imagined, that plasters might be impregnated with the virtues of different vegetables, by boiling the recent vegetable with the oil employed for the composition of the plaster; but this method does not communicate any valuable qualities to the oils.

Anodyne Plaster.

TAKE eight ounces of white resin; of tacamahaca, in powder, and galbanum, each four ounces; common seeds, three ounces; black soap, four ounces. After milling the resin and the gums together, add the powdered seeds and the soap, and make the whole into a plaster.

Common Plaster.

TAKE six pints of common olive-oil; and two pounds and a half of litharge, reduced to a fine powder. Boil the litharge and oil together, over a gentle fire, continually stirring them, and keeping always about two quarts of water in the vessel: when they have boiled about three hours, take out a little of the plaster and put it into cold water, to see if it be of a proper consistence: when that is found to be the case, the whole may be suffered to cool, and the water should be well pressed out of it with the hands.

This plaster is generally used in slight wounds and excoriations of the skin. It keeps the part soft and warm, and defends it from the air, which is all that is required in such cases. It is principally used, however, as a basis or foundation for other plasters.

Adhesive Plaster.

MELT half a pound of common plaster, with a quarter of a pound of Burgundy pitch. The principal use of this plaster is to keep on the other dressings.

Common Sticking Plaster.

TAKE three pounds of common plaster, and half a pound of yellow resin. Melt the common plaster over a gentle fire, and then add the resin, first reduced into powder that it may melt the sooner; and mix them all together.

Wax Plaster.

TAKE a pound of yellow wax; half a pound of white resin; three quarters of a pound of mutton suet. Melt them together. This is frequently used instead of the *Melilet Plaster*; and is proper to be applied after blisters, and in other cases where a gentle digestive is necessary.

Gum Plaster.

TAKE four pounds of the common plaster; gum ammoniac, and galbanum, strained, of each half a pound. When melted together, add to them six ounces of Venice turpentine. This plaster is used as a digestive, as well as for discussing or dispersing indolent tumours.

Cephalic Plaster.

TAKE two pounds of Burgundy pitch; one pound of soft labdanum; four ounces of yellow resin; four ounces of yellow wax; one ounce of the expressed oil, called oil of mace. Melt the pitch, rosin, and wax together; and then add, first the labdanum, and afterwards the oil of mace.

Another.

TAKE of tacamahaca, in powder, yellow wax, Venice turpentine, of each four ounces; oil of lavender, two drams; oil of amber, one dram. Melt the tacamahaca with the wax, and then add the turpentine, that

that a plaster may be formed. When this compound is taken from the fire, and grown almost cold, mix in the oils.

These plasters are applied, in weakness or pains of the head, to the temples, forehead, &c. and sometimes also to the feet. Sculze informs us, that an inveterate rheumatism in the temples, which at times extended to the teeth, and occasioned intolerable pain, was completely cured in two days, by a plaster of this kind, (with the addition of a little opium) applied to the part, after many other remedies had been tried in vain.

POWDERS.

THOUGH this is one of the most simple forms in which medicine is administered, there are many medicinal substances that cannot be reduced into powder; and there are others too disagreeable to be taken in this form.

The lighter kind of powders may be mixed in tea, water-gruel, or any thin agreeable liquor. Those which are more ponderous will require a vehicle of more density or thickness, as syrup, jelly, or honey. Substances which are difficult to powder, as gums, &c. should be powdered with the drier ones: such as are too dry, especially aromatics, should be sprinkled during the process of reducing them to powder with a few drops of water, or any proper liquid.

Aromatic powders should be prepared in small quantities at a time, and be kept in glass vessels closely stoppered. Any other powders will indeed receive injury by being exposed to the air, or kept too long.

Diuretic Powder.

TAKE ten grains of sal prunel; four grains of salt of amber; three drops of oil of turpentine; one scruple of fine sugar. Drop the oil upon the sugar, then add the salt, and grind the whole together.

This powder is a very efficacious diuretic, and may be given to advantage in cases where the assistance of
4 D 2 such

such forcing medicines is required. The salts somewhat abate the healing quality of the oil, as well as cool and relax the passages.

Another.

· **TAKE** four ounces of gum arabic, and one ounce of purified nitre. Having pounded them together, divide the whole into twenty-four doses.

One of these cooling powders may be advantageously taken three times a day during the first stage of the venereal disease.

Powder against the King's Evil.

TAKE one scruple of burnt sponge ; of nitre, coralline, and fine sugar, each half a scruple. Reduce them into a powder.

This powder is recommended in scrophulous disorders, and obstructions of the glands ; it is supposed to open and cleanse the minute vessels, and carry off the offending matter by urine. Dr. Mead informs us, in his *Monita Medica*, that he very frequently experienced its good effects : and he usually gave the quantity above prescribed twice a-day, with three or four glasses of the less compounded lime-water with each dose. If the patient was much emaciated, the lime water was mixed with about an equal quantity of milk.

Astringent Powder.

TAKE two drams of alum, and the same quantity of japan earth. Pound them together, and divide the whole into ten or twelve doses. In an immoderate flow of the *menfes*, and other hæmorrhages, one of these powders may be taken every hour, or half hour, according to the violence of the discharge.

Cephalic Powder.

TAKE equal quantities of the leaves of assarum, and marjoram, and beat them together into a powder.

Sternutatory Powder.

TAKE of asarum, marjoram, marum syriacum leaves, dried, lavender-flowers, dried, each equal weights, rub them together into a powder.

The

The titles of these powders sufficiently point out their intention. They are agreeable and efficacious errhines, or sneezing-powders, and superior to most of those sold under the denomination of herb snuff.

Carminative Powder.

TAKE half an ounce of coriander-seed, a dram of ginger, half a dram of nutmegs, a dram and a half of fine sugar. Reduce the whole into powder, and divide it into twelve doses. This powder is used for expelling flatulencies, or wind, arising from indigestion, especially those which frequently afflict hysteric and hypochondriac persons. When children are troubled with gripes, it may be given to them in their food, in small quantities.

Compound Powder of Sena.

TAKE of crystals of tartar and sena, each two ounces; scammony, half an ounce; cloves, cinnamon, and ginger, of each two drams. Powder the scammony, by itself; and all the other ingredients together; then mix them.

Saline Laxative Powder.

TAKE a dram of soluble tartar, a dram of cream of tartar, half a dram of purified nitre. Make them into a powder. In fevers, and other inflammatory disorders, when the body should be kept gently open, one of these cooling laxative powders may be taken occasionally in a little gruel.

Strengthening Powder.

TAKE twelve grains of extract of Peruvian bark; two grains of salt of steel; one drop of oil of cinnamon; half a dram of fine sugar. Having mixed the oil with the sugar, add the other ingredients, and grind the whole well together, for two doses.

In lax habits, debilities of the nervous system, and the weaknesses peculiar to either sex, this medicine has generally good effects.

Sudorific Powder.

THIS sudorific or sweating powder is made of purified nitre and vitriolated tartar, of each half an ounce; opium,

opium, and ipecacuanha, of each one dram. Mix all these ingredients together, and reduce them to a fine powder.

This powerful sudorific is well known under the appellation of *Dover's Powder*. In obstinate rheumatisms, and other cases, where copious sweating is required, this powder may be given in the dose of a scruple or half a dram. Plenty of warm diluting liquor should accompany it. Some patients require two scruples of this powder.

Compound Powder of Ceruse.

TAKE of ceruse, five ounces; sarcocolla, an ounce and a half; gum tragacanth, half an ounce. Beat them together into a powder.

This composition is used for external purposes, as in collyria, lotions, and injections, for repelling acrimonious humours, and inflammations.

Aromatic Opening Powder.

TAKE two drams of the best Turkey rhubarb, and the same quantity of cinnamon; to these add two drams of fine sugar. Then pound the ingredients, and afterwards mix them well together.

If flatulency is accompanied with costiveness, a tea-spoonful of this opening powder may be taken once or twice a day, at discretion.

Compound Powder of Myrrh.

TAKE of rue-leaves, dried, dittany of Crete, and myrrh, each an ounce and a half; assafætida, sagapentum, Russia-castor, opopœnax, each an ounce. Beat them together into a powder.

This composition is a reformation of *trofchisci e myrrha*, contrived by Razi against uterine obstructions. It may be taken in any convenient vehicle, or made into boluses, from a scruple to a dram, or more, twice or three times a day.

Worm Powder.

TAKE an ounce of tin, reduced into fine powder; two drams of Æthiop's mineral. After mixing them well

well together, divide the whole into six doses. One of these powders may be taken twice a-day, in a little syrup, honey, or treacle. When these are all used, the following purge may be necessary:

Purging Worm Powder.

TAKE a scruple of powdered rhubarb; five grains of scammony; and five grains of calomel. Rub them together in a mortar for one dose. For children the above doses should be lessened, attention being necessary to be paid to their respective ages.

If the powder of tin be administered alone, the dose may be considerably increased.

Compound Powder of Crab's Claws.

TAKE of the tips of crabs' claws, prepared, one pound; pearls, prepared, red coral prepared, each three ounces. Mix them together.

SYRUPS.

SYRUPS were formerly considered as medicines of much greater importance than they are thought to be at present. Syrups and distilled waters were for some ages made use of as the great alteratives; insomuch that the evacuation of any peccant or corrupt humour was never attempted, till by a due course of these, it had been first regularly prepared for expulsion.

Syrups are saturated solutions of sugar, made in water, or watery, or vinous infusions, or in juices. It is well known that numbers of syrups have been prepared from ingredients, which in this form cannot be taken in sufficient doses to exert their virtues; for two thirds of a syrup consist of sugar, and the greatest part of the remaining third is an aqueous fluid.

At present, however, syrups are regarded chiefly as vehicles for medicines of greater efficacy; and are used for sweetening draughts, juleps, or mixtures, and for reducing the lighter powders into boluses, pills, and electuaries.

electuaries. The simple Syrup alone will answer all these purposes, and consequently there is but little occasion for any other.

Some few syrups indeed may, not improperly be considered as medicines themselves, as those of saffron, buckthorn berries, &c. It will be unnecessary, however, to dwell largely upon this head, but some of the following instructions may probably be found useful.

Simple Syrup.

SIMPLE syrup is made by dissolving in water, either with or without heat, about double its weight in fine sugar.

Syrup of Wild Poppies.

TAKE of wild poppy flowers, fresh, four pounds; boiling water, four pints and a half. Pour the water on the poppies, set them over the fire, and frequently stir them, till the flowers are thoroughly moistened. As soon as they have sunk under the water, let the whole be set by to steep for a night. The next day pour off, and press out the liquor, and set it by for a night longer to settle: afterwards add the proper quantity of double refined sugar to make it into a syrup.

This syrup has been recommended in disorders of the breast, coughs, spitting of blood, pleurisies, and other diseases, both as an emollient, and an opiate. It is one of the lightest of the opiate medicines, and in this respect so weak that some have doubted of its having any anodyne quality.

Syrup of Diacodium.

TAKE of white poppy heads, dried, and cleared from the seeds, three pounds and a half; water six gallons.

Cut the heads and boil them in the water, stirring them now and then, to prevent their burning, till only about one third part of the liquor remains, which will be almost entirely soaked up by the poppies. Then remove the vessel from the fire, strongly press out the decoction, and boil it down to about four pints: strain it, while hot, first through a sieve, and afterwards through
a fine

a fine linen cloth : and set it by for a night, that the dregs may subside. Next morning pour the liquor off clear, and boil it with six pounds of double refined sugar, till the weight of the whole is nine pounds, or a little more, that it may become a syrup of a proper consistence.

This syrup, impregnated with the opiate quality of the poppy heads, is given to children in doses of two or three drams ; to adults, from half an ounce to an ounce and upwards, for sheathing and incrassating acrimonious humours, easing pain, procuring rest, and answering the other intentions of mild opiates.

If twenty-five drops of laudanum be added to an ounce of the simple syrup, mentioned above, it will supply the place of diacodium, or the syrup of poppies, and will be found a safe and useful medicine.

Syrup of Lemons.

DISSOLVE in lemon-juice, by the heat of a warm bath, nearly double its weight of fine sugar. The juice should be previously strained, and suffered to stand till it settles.

Syrup of Ginger.

INFUSE two ounces of bruised ginger in a quart of boiling water for twenty-four hours. Strain the liquor, and let it stand to settle for some time : then pour it off, and let double its weight of fine powdered sugar be dissolved in it.

This syrup is of use as a warm vehicle for giving medicines to persons afflicted with flatulency.

Syrup of Dry Roses.

TAKE half a pound of red roses, dried ; six pounds of fine sugar ; two quarts of boiling water. Infuse the roses in the water for a night, then boil them a little, strain out the liquor, and adding to it the sugar, boil them to the consistence of a syrup.

This syrup is said to be mildly astringent, but it is principally valued on account of its red colour.

TINCTURES, &c.

TINCTURES form an useful and elegant class of medicines, possessing many of the most essential virtues of simples, without being clogged with its inactive useless parts.

SUDORIFIC TINCTURE.

TAKE six drams of virginia snake-root; two drams of cochineal; two drams of English saffron; one scruple of opium; and one pint of spirit of mindererus. Digest them together in a gentle heat for three days, and then pass the tincture through a strainer.

This composition is an efficacious sudorific; the ingredients being of the most powerful kind, and the menstruum not only extracting those parts of them in which their virtues consist, but co-operating strongly in the same intention.

Aromatic Tincture.

TAKE two ounces of Jamaica pepper, and infuse it in two pints of brandy, without heat, for a few days; then strain off the tincture. This simple tincture will answer all the intentions of the more costly preparations of this kind. Though it is rather too hot to be taken alone, it is very proper for mixing with such medicines as might otherwise be thought too cold for the stomach.

Compound Tincture of Castor.

TAKE one ounce of Russia castor; half an ounce of assafetida; one pint of volatile oily spirit (commonly called spirit of sal volatile) Digest for six days in a close-stopped phial, frequently shaking the vessel, and then strain the tincture. This is a medicine of real efficacy, particularly in hysterical disorders, and the several symptoms which accompany them.

Compound Tincture of the Bark.

TAKE two ounces of Peruvian bark; half an ounce of Seville orange-peel; half an ounce of cinnamon. Powder the bark, and bruise the other ingredients; then infuse

fuse the whole in a pint and a half of brandy, in a close vessel, for five or six days; afterwards strain off the tincture.

This medicine is beneficial in intermitting fevers, as well as in the slow, nervous, and putrid kinds, especially towards their decline.

From one dram to three or four, may be taken every five or six hours. It may be given in any suitable liquor, and occasionally sharpened with a few drops of the spirit of vitriol.

Simple Tincture of Valerian.

TAKE four ounces of wild valerian root, and a quart of proof spirit. After due digestion strain off the tincture.

The valerian root should be reduced into fine powder, otherwise the spirit will not sufficiently extract its virtues. The tincture proves of a deep colour, and considerably strong of the valerian; though it has not been found to answer so well in the cure of epileptic disorders, as the root in substance exhibited in the form of a powder or bolus. The dose of the tincture is, from half a spoonful to a spoonful, or more, two or three times a day.

Volatile Tincture of Gum Guaiacum.

TAKE four ounces of gum guaiacum, and a pint of volatile aromatic spirit. Infuse for a few days, without heat, in a vessel well stopped; then strain off the tincture. In rheumatic complaints, a tea-spoonful of this tincture may be taken in a cup of the infusion of water-trefoil, two or three times a day.

OR,

INFUSE three or four ounces of gum guaiacum in a bottle of rum or brandy, and it will make a very good tincture.

Tincture of Opium, or Liquid Laudanum.

TAKE of crude opium two ounces; spirituous aromatic water, and mountain wine, of each ten ounces. Dissolve the opium sliced in the wine, with a gentle heat, frequently stirring it; then add the spirit and strain off the tincture.

As twenty-five drops of this tincture contain about a grain of opium, the common dose may be from twenty to thirty drops.

Compound Tincture of Senna.

TAKE one ounce of senna; half an ounce of jalap; the same quantity of coriander seeds; and also half an ounce of cream of tartar. Infuse them for a week in a pint and a half of French brandy; afterwards strain the tincture, and add to it four ounces of fine sugar. The dose is from one to two or three ounces. This tincture answers all the purposes of *Daffy's Elixir*.

Bitter Tincture of Rhubarb.

TAKE of rhubarb, one ounce; gentian root, a dram and a half; Virginian snake-root, a dram; cochineal, a scruple; French brandy, a pint. Digest for two days, and then strain the tincture.

This tincture may also be made with mountain wine.

Spirituos Tincture of Rhubarb.

TAKE of rhubarb, two ounces; lesser cardamom seeds, husked, half an ounce; saffron, two drams; proof spirit, one quart. Digest without heat, and strain off the tincture for use.

Sweet Tincture of Rhubarb.

TAKE two ounces of rhubarb; half an ounce of lesser cardamoms; two pints of French brandy. Digest for two days; then strain out the tincture, and add to it four ounces of white sugar candy, in powder; and digest again till the sugar is dissolved.

All the tinctures of rhubarb, directed to be prepared as above, are designed as stomachics and corroborants, as well as purgatives; spirituous liquors completely extract those parts of the rhubarb in which the two first qualities reside, and the additional ingredients considerably promote their efficacy. In weakness of the stomach, indigestion, laxity of the intestines, diarrhæas, colicky, and other like complaints, these medicines are frequently of great service,

Paregoric

Paregonic Elixir.

INFUSE half an ounce of flowers of benzoin, and two drams of opium, in one pound of the volatile aromatic spirit, for four or five days, frequently shaking the bottle; then strain the elixir.

This is a safe and pleasant way of administering opium. It eases pain, abates tickling coughs, removes difficulty of breathing, and is of service in many of the diseases of children, especially in the whooping cough.

To an adult the dose is from fifty to a hundred drops.

Pectoral Elixir.

TAKE of balsam of Tolu, two ounces; balsam of Peru, one ounce; flowers of benzoin, and English saffron, each half an ounce; rectified spirit of wine, a quart. Digest them in a sand-heat for three days, and then strain off the elixir.

A tea-spoonful of this balsamic elixir may be taken two or three times a day, as an expectorant and detergent in coughs and ulcerations of the breast.

VINEGARS.

VINEGAR is produced from fermented vinous liquors by a second fermentation. Wine vinegar is much purer than that prepared from malt liquors; the latter, however acid and fine, contains a large portion of a viscous mucilaginous substance; as is evident from the ropyness and slimyness which this kind of vinegar is very much subject to: the stronger and more spirituous the wine, the better and stronger vinegar it yields.

Vinegar is an excellent medicine in all kinds of inflammatory and putrid disorders, either internal or external: in ardent bilious fevers, pestilential, and other malignant distempers, it is recommended by Boerhaave as one of the most certain sudorifics. Weakness, faintings, vomitings, and other hysteric affections, have been frequently relieved by vinegar applied to the mouth and nose, or received into the stomach.

We should frequently be disappointed, however, if

we

we expected these good effects from every thing that is denominated vinegar; care should be taken that it is sound and well prepared.

Vinegar of Squills.

TAKE two ounces of dried squills, and a quart of distilled vinegar. Infuse for ten or fourteen days in a gentle degree of heat; then strain off the liquor, and add to it about a twelfth part of its quantity of proof spirits.

Vinegar of Roses.

TAKE half a pound of red roses, and two quarts of strong vinegar; infuse in a close vessel for several weeks, in a gentle heat. Afterwards strain off the liquor. This is chiefly used as an embrocation for head-achs, &c.

Treacle Vinegar.

TAKE of Edinburgh theriaca, one pound; strong vinegar, five pints. Digest them together in a very gentle heat for three days; then strain out the vinegar for use. This medicine has been greatly celebrated in acute and contagious diseases, as a sudorific and alexipharmic.

SIMPLE DISTILLED WATERS.

THESE are now principally considered in the light of grateful diluents, suitable vehicles for medicines of greater efficacy, and for rendering disgusting ones more agreeable to the palate and stomach.

Angelica Water.

TAKE any quantity of fresh angelica leaves, and three times that quantity of water; and distil as long as the liquor runs well-flavoured of the plant.

Rose Water.

TAKE six pounds of fresh-gathered roses; water, two gallons. Distil off one gallon. This water is esteemed for its fine flavour.

Cinnamon

Cinnamon Water.

TAKE a pound of cinnamon bark, bruised, and steep it in a gallon and a half of water, and a pint of brandy for two days; then distil off one gallon. This is a very pleasant aromatic water.

SPIRITUOUS DISTILLED WATERS.

Lemon Water.

TAKE of dried lemon-peel, four pounds; clean proof spirit, ten gallons and a half, and one gallon of water. Draw off ten gallons by a gentle fire, and sweeten with fine sugar.

Citron Water.

TAKE of dry yellow rinds of citrons, three pounds; of orange-peel, two pounds; nutmegs, bruised, three quarters of a pound; clean proof spirit, ten gallons and a half; water, one gallon: digest with a gentle heat, then draw off ten gallons, and sweeten with fine sugar.

Orange Water.

TAKE of the yellow part of fresh orange-peels, five pounds; clean proof spirit ten gallons and a half; water, two gallons. Draw off ten gallons with a gentle fire.

Pennyroyal Water.

TAKE of pennyroyal leaves, dried, a pound and a half; water, a gallon and a half, or somewhat more. Draw off by distillation one gallon. This water is frequently given in mixtures and juleps to hysteric patients.

Spirituos Cinnamon Water.

STEEP one pound of cinnamon in one gallon of proof spirit, one gallon of common water, for two days; then distil off one gallon.

Geneva.

THERE was formerly sold, in the shops of the apothecaries, a distilled spiritous water of juniper: but the common people being fond of it as a dram, the distillers supplanted the apothecaries, and sold it under the name of Geneva. The common kind, however, is not made from juniper berries, but from oil of turpentine. The

receipt for making this kind of spirit, sold at the gin shops, in London, is as follows: Take of the ordinary malt spirits, ten gallons; oil of turpentine two ounces; bay salt, three handfuls; draw off by a gentle fire till the fumes begin to rise; and make up your goods to the strength required, with clear water.

The best kind is made by the following recipe. Take of juniper berries, three pounds; proof spirit ten gallons; water four gallons; draw off by a gentle fire till the fumes begin to rise, and make up your goods to the strength required with clean water.

There is a sort of this liquor called Hollands Geneva, from its being imported from Holland, which is greatly esteemed. The ingredients used by the Dutch, are the same with those given in the last recipe; only, instead of malt-spirits, they use French brandy. But from what has been already observed concerning the nature of these kinds of spirits, it is easy to see, that, by the help of a well-rectified spirit, Geneva may be made in this country at least nearly equal to the Dutch, provided it is kept to a proper age; for all spirituous liquors acquire a softness and mellowness by age, impossible to be imitated in any other way.

WHEYS.

Allum Whey.

TAKE of cows' milk, one pint; allum, in powder, two drams; boil them till the milk is curdled, and then carefully separate the whey. This is a strong astringent, and is beneficial in an immoderate flow of the *menfes*, and in a *diabetes*, or excessive discharge of urine.

Mustard Whey.

TAKE a pint of milk, a pint of water, and an ounce and an half of bruised mustard-feed. Boil them together till the curd is perfectly separated; then strain the whey through a cloth. The dose is a common tea-cup full four or five times a day. It warms and invigorates the habit, and will often supply the place of wine, in low nervous fevers. It is also useful in the chronic rheumatism, palsy, dropsey, &c. By adding a little sugar to it the taste is improved.

ALPHABETICAL EXPLANATION
OF SUCH MEDICAL, AND OTHER ESSENTIAL ARTICLES,
AS MAY NOT BE GENERALLY UNDERSTOOD.

A.

ABDOMEN, the belly, or lower venter; or that part of the body comprehended between the thorax and the hips. Anatomists usually divide the body into three regions, or venters; the head, the thorax, or breast, and the abdomen, which makes the lowest part of the trunk.

ACESCENT, a word used to denote any thing which is turning sour, or acid, or which is slightly acid. It is only applied properly to denote the first of these two meanings; the second may be better expressed by either of the words *acidulous* or *subacid*.

ACIDS, derive their name from the word *acere*, to be sharp: which expresses one quality by which they are distinguished, viz. their sour taste. They form one of the general classes into which simple salts are divided, and are the most simple of all saline substances.

ACIDULATED, any thing wherein acid juices have been put, to give it a coolness and briskness.

AFTER-BIRTH, the coat or membranes wherein the *fœtus* is inclosed *in utero*. It is thus called because it comes away some time *after* the *fœtus*, by way of a second birth, or delivery. Physicians call it the *secundine*. It also includes the *placenta uterina*, popularly called the womb-cake.

AGGLUTINANTS, a species of strengthening medicine, whose office and effect are to adhere to the solid parts of the body, and thus recruit and supply the place of what is worn off, and wasted in the animal actions. Agglutinants are chiefly of the glutinous kind, or such as easily form themselves into jellies, and gummy consistencies; whence the name *agglutinant*. The principal simples which come under this class, found in the shops, are isinglass, oliibanum, gum Arabic, dragon's blood, cassia, vermicelli, sago, pulse, comfrey, &c.

AGITATION, a term used in medicine for a species of exercise usually called swinging; and in general for any exercise which shakes the body. Bartholine mentions fits of the tooth-ach, deafness, &c. removed by vehement agitations of the body; and they have been found highly useful for preventing and dissolving concretions. Dr. Syden-

ham attributes the great benefit of riding to agitation, which is very efficacious in removing obstructions of the viscera.

ALBUMEN, the white of an egg. This, according to Boerhaave, makes an extraordinary menstruum. A little putrid white of egg taken into the stomach, occasions a nausea, horror, fainting, vomiting, diarrhæa, and gripes; it inflames the bile, excites heat, thirst, fever; and dissolves the humours like the plague. On the contrary, the *white of fresh-laid eggs*, if taken while warm from the hen, is extremely nourishing to the infirm; it may be taken in luke-warm milk; but if any other heat is applied to it, the nutritious quality will be destroyed. The fresh white of egg prevents burns from rising in blisters, if it is used immediately after the accident: it mitigates inflammations of the eyes, and preserves the face from sun-burning.

ALEXIPHARMIC, in medicine, expresses that property which a remedy, either simple or compound, hath to resist or destroy every thing of a poisonous or malignant nature. Alexipharmic medicines, in general, contain a great number of volatile parts, and such as render the mass of blood fluid. The greatest part of them are aromatic and pungent to the taste, though there are some acid plants and juices among them; but these are only reckoned in the number, on account of their use in malignant and colliquative fevers. Alexipharmics chiefly act by exciting, or increasing a diaphoresis or perspiration, by which the noxious matter is thrown off. Alexipharmics are also esteemed preservatives against malignant and pestilential fevers; but they are to be used with caution. It is dangerous to administer alexipharmics to young people of plethoric habits, without previous evacuations; and Celsus advises only to promote a sweat, when the marks of one approaching are evident. Alexipharmics are deemed proper correctors of opium, when it produces sickness, nausea, &c. They are also serviceable in those diseases which proceed from external cold, and obstructed perspiration, as catarrhs, rheumatisms, fluxes, coughs, and glandular tumours. They make a large class of medicines, but the principal ones are these—Of the animal kingdom, hartshorn, bezoars, and the bones and teeth of different animals.—Of the vegetable kingdom, the leaves and flowers of all the aromatic plants, especially such as are umbelliferous.—Of the mineral kingdom, the different preparations of antimony, the dulcified spirit of vitriol with alcohol.

ALIMENT, (from *alo*, to nourish) implies food both solid and liquid.

ALIMENTARY

ALIMENTARY DUCT or **CANAL**, a name given by Dr. Tyson, and some others, to that part of the body through which the food passes, from its reception into the mouth to its exit at the anus, including the stomach and intestines. This duct has been said to be the true characteristic of an animal, there being no animal without it. Plants receive their nourishment by the numerous fibres of their roots, but have no common receptacle for digesting the food received, or for carrying off the recrements. But in all, even the lowest degree of animal life, we may observe a stomach and intestines, even where we cannot perceive the least formation of any organ of the senses, unless that common one of feeling, as in oysters. *Phil. Tr.* 267. Dr. Wallis brings an argument, from the structure of the alimentary tube in man, to prove that he is not naturally carnivorous; to which Dr. Tyson makes some objections. *Phil. Tr.* No. 266.

ALTERATIVE, a property in certain medicines, whereby they induce an alteration in the body, and dispose it for health and recovery, by correcting some indisposition, without occasioning any sensible evacuation. Alteratives, therefore, must generally be either such remedies as destroy some prevailing acrimony in the *prima via*, or in the juices; or such as resolve concretions in the blood-vessels, and dispose them, when thus resolved, to pass out of the body by perspiration, or some of the least remarkable evacuations. Alteratives are usually divided into four kinds, *viz.* *absorbents*, *temperating medicines*, *penetrating medicines*, and *demulcents*.

ANATOMY, the art of dissecting, or artificially separating the parts of an animal body, to discover their situation, figures, connexions, fabric, and œconomy. The term is usually applied to the examination of the structure of human bodies.

ANCYLOGLOSSUM, a contraction of the ligaments of the tongue. Some have this defect from their birth, others from some disease. In the first case, the membrane which supports the tongue is too short, or too hard: in the latter, an ulcer under the tongue, healing and forming a cicatrix, is sometimes the cause. The ancyloglossi, by nature, are late before they speak; but when they begin, they soon speak properly. These we call *tongue tied*. Mauriceau says, that in this case it is a small membranous production, which extends from the frænulum to the tip of the tongue, and hinders the child from sucking, &c. He justly condemns the cruel practice among nurses, of tearing this membrane with their nails; for thus ulcers are sometimes formed,

which are difficult of cure: he advises to snip it with scissars in two or three places, taking care not to extend the scissars so far as the frænulum. The instances seldom occur which require any kind of assistance; for if the child can thrust the tip of its tongue to the outer edge of its lip, this disease does not exist; and if the tongue is not greatly restrained, the frænulum will stretch by the child's sucking and crying.

ANODYNE, a term applied to medicines which ease pain, and procure sleep. They are divided into three sorts—*purgatives*, or such as assuage pain—*hypnotics*, or such as relieve by procuring sleep; and—*narcotics*, or such as relieve the patient by stupefying him. Opiates and narcotics destroy sensation. Some hypnotics and purgatives, as nitre, camphor, &c. procure ease and sleep by removing the offending cause. Camphor is said to be the best anodyne in nervous cases, and at the decline of fevers. The doses of these medicines are generally regulated by the pulse. Anodynes should not be given without great caution, nor on a full stomach, nor in dropsies. Hemlock procures ease and sleep, without causing that head-ach next morning, usually complained of after taking opium. If the pulse be strong, a larger dose is safe; if weak, a smaller dose must be given. We have compound medicines in the shops, prepared with this intention, and called by this name. Such is the anodyne balsam, made of Castile soap, camphor, saffron, and spirit of wine, digested in a sand heat. It is recommended not only for procuring ease in the most racking extremities of pain, but also for assisting in discharging the peccant matters that occasioned it. A ready way of preparing any useful, safe, and efficacious anodyne, is as follows; take half an ounce of opium, dissolve it in a gentle heat in three ounces of water, strain the solution, and evaporate it to a dry substance. Grind this to powder in a glass mortar with three times the quantity of loaf-sugar, and you have an excellent preparation of opium, to be given three or four grains for a dose. By dissolving the opium thus in water, we get rid of its gross and foul parts, and also of its resinous parts, which are found much more pernicious than the rest; and by dividing its parts afterwards with sugar, the medicine is rendered more uniform, resolvable, and miscible, with animal fluids. But however opium is prepared, it still must be acknowledged that it retains qualities that make it little less than a poison in a very large dose; whence it were much to be wished something could be found that would be more innocent, and yet answer the same purpose. And this camphor and nitre will do, on many occasions, though not on all.

ANTECEDENT

ANTECEDENT signs, in medicine, are such symptoms of disease as appear before a distemper is so formed as to be reducible to any particular class, or proper denomination.

ANTEPILEPTIC denotes a quality in bodies whereby they resist or oppose the epilepsy, and convulsive motions.

ANTIMONIALS, denote preparations of antimony; or remedies whereof antimony is the principal ingredient. Antimonials are principally of an emetic tendency; though they may be so qualified as to become cathartic, diaphoretic, or only alterative. Quincy declares, that there are no medicines in pharmacy to be compared with these in maniacal affections; for that there are no emetics or cathartics, of any other tribe, that are strong enough for such patients, unless in an over-dose, which might be dangerous. An antimonial cup, made either of glass of antimony, or of antimony prepared of salt-petre, though a substance indissoluble by the stomach, will give a strong cathartic or emetic quality to any liquor poured into it, without any diminution of its own weight. The preparations of antimony, which take their name from that mineral, are too numerous to be inserted here.

ANTIPERISTALTIC, a motion of the intestines, contrary to the peristaltic motion.

ANTISEPTIC, a word applied to such substances as resist putrefaction. Dr. Pringle has given us some curious experiments in relation to antiseptic substances, and ascertained their several virtues.

ANTISPASMODICS, medicines proper for the cure of spasms and convulsions.

AORTA, in anatomy, the great artery proceeding from the left ventricle of the heart; from which all the other arteries either mediately or immediately proceed, and by which the whole mass of blood is conveyed to all parts of the body. It is divided into two grand trunks, distinguished by the terms ascending and descending.

APEPSIA. Indigestion. Abstemiousness and excess are alike productive of this disease.

APERIENTS, or aperitive medicines open the obstructed passages of the small vessels, glands, and pores, and promote a due circulation of the contained juices. The five lesser aperient, or opening roots, are grass, madder, eryngo, capers, and chammoc. The greater aperient, or opening root, are smallage, fennel, asparagus, parsley, and butcher's-broom.

APHTHÆ, little ulcers or pimples rising in the mouth, the palate, gums, and at the root of the tongue; attended with inflammation, and a difficulty of swallowing. Sucking children

dren are particularly subject to aphthæ, when either the nurse's milk is corrupted, or the child's stomach becomes unfit for digestion; for, in these cases, the sharp acrimonious parts of the milk rising up, easily exulcerate those tender and delicate parts. There are some aphthæ white, others red, others livid and blackish; the white and red sorts are the least dangerous, and the most easily cured; the lived and black often prove mortal.

APOZEM, a form of remedy, otherwise called a *decoction*. Apozems are a class of liquid medicines, composed of the juices of divers plants, roots, woods, flowers, leaves, fruits, and seeds drawn out by boiling in water, and sweetened and clarified. An apozem differs from a syrup, in thickness and consistence; the syrup being more dense and viscous than the apozem, from the quantity of sugar. It differs from a julep, as being thicker and more viscous; and is not made with distilled water as juleps are. There are cephalic apozems, purging apozems, hepatic apozems, antarthritic, diuretic, &c. apozems. These are medicines of the extemporaneous kind, and therefore the less used.

ARDENT SPIRITS, are those distilled from fermented vegetables; and they are so called, because they will take fire and burn. Such are brandy, spirit of wine, rum, arrack, gin, &c.

AROMATICS, or aromatic medicines, are either simple or compound. To this class belong most of the cardiac, cephalic, and carminative remedies, with many of those which are stomachic. Of this kind are frankincense, benjoin, storax, cinnamon, mace, cloves, nutmeg, pepper, &c. Such also are lavender, marjoram, sage, thyme, rosemary, &c. Aromatics are of peculiar service in cold cachectic habits, where the load of humours has been forced away by strong detergents and cathartics; as they tend to strengthen the fibres, and prevent a relapse. Hence also they become useful after purging, and carrying off the waters of a dropsy, or in the intervals, to fortify the springs, and prevent a filling again.

ARSENIC, a heavy opaque substance, usually sold in white masses, which, when broken, discover a semi-transparency, somewhat resembling that of sal ammoniac. By various chymical processes, it may be made to assume the appearance either of an acid salt or metal, at the pleasure of the operator; and therefore has been considered both as a saline substance, and as a semimetal. Arsenic, in its pure state, is well known to be a most destructive and deadly poison, for which the art of medicine has scarcely yet afforded a cure. Corrosive sublimate, solutions of mercury in aqua fortis, &c. will

as certainly poison as arsenic; but their effects are much less difficult to cure, because any alkaline substance will certainly decompose them, and destroy their deleterious quality. Arsenic, on the contrary, cannot be decomposed, nor united with any known substance, at least in such a short time as the exigence of the case we speak of would require, without a considerable degree of heat. It therefore remains in the stomach, continually exerting its mischievous qualities, unless it can be discharged by vomiting. The symptoms attending arsenic when swallowed are nausea, sickness, and retching to vomit, about half an hour after it is taken. These are followed by violent vomitings, hiccups, and pains in the stomach and bowels. Convulsions, and palsies of the limbs presently succeed, with intense heats, cold sweats, palpitations of the heart, extreme anxiety, thirst and dryness of the mouth and thorax, loss of reason, and at last death. If the quantity taken was considerable, the patient dies in seven or eight hours after taking it; and the stomach and intestines are found upon dissection, to be corroded and perforated. The chymists furnish several preparations of arsenic, which all turn on repeated ablutions and sublimations, to blunt its corrosive salts, and change it into a safe medicine, after the manner of sublimate. Such are ruby of arsenic, &c.

ARTERY, in anatomy, a canal appointed to receive the blood from the ventricles of the heart, and distribute it to all parts of the body for the maintenance of heat and life, and the conveyance of the necessary nutriment.

ATONY, a want of tone or tension; or a relaxation of the solids of a human body; occasioning a loss of strength, faintings, &c.

ATROPHY, a disease wherein the body or some of its parts, do not receive the necessary nutriment, but continually waste and dwindle. An atrophy is either nervous, or the effect of evacuations.

ATTENUANTS are such attenuating medicines as subtilize and break the humours into finer parts, and thus dispose them for motion, circulation, excretion, &c. Attenuated stand opposed to *incrassants*, or thickeners, medicines which condense, &c.

AURICLE, in anatomy, the external ear, or that part of the ear which is prominent from the head. It is a diminutive of *auris*, ear.

B.

BALSAMICS. This term includes medicines of very different qualities, as emollients, detergents, restoratives, &c. but in medicines

medicines of all these kinds there seems to be this requisite in them, that they may be soft, yielding, and adhesive; also that by their smallness they have a ready disposition to motion. Medicines of this tribe are generally required for complaints seated in the viscera; and as they cannot be conveyed there but by the common road of the circulation, it follows, that no great effects can be expected from them but by their long continuation. Hoffman applies the name of balsamics to those medicines which are hot and acrid; as he does the natural balsams, gums, &c. by which the vital heat is increased.

BATHS, are distinguished into *hot* and *cold*, and these again are either natural or artificial. The chief hot baths in this country are those of Bath and Bristol, in Somersetshire; and those others of Buxton and Matlock, in Derbyshire; which latter, however, are rather warm than hot. In the city of Bath there are four hot baths: one triangular, called the *cross bath*, from a cross which formerly stood in the midst of it; the heat of which is more gentle than that of the others, because it has fewer springs. The second is the *hot bath*, which formerly was much hotter than the rest, when it was smaller than it is now. The other two are the *king's* and *queen's bath*, divided only by a wall; the last having no spring, but receiving the water from the king's bath, which is about sixty feet square, and has in the middle of it many hot springs, which render its healing qualities more effectual. Each of these is furnished with a pump, to throw out water upon the diseased, when it may be required. The use of these baths is found beneficial in diseases of the head, as palsies, &c. in cuticular diseases, as leprosy, &c. obstructions and constipations of the bowels, the scurvy, and stone, and in most of the diseases of women and children. The baths have performed many cures, and are commonly used as a last remedy in obstinate chronic cases.

COLD BATHS have performed many extraordinary cures, such as have long been attempted in vain by the most powerful medicine. The *cold bath*, indeed, is found one of the most universal and innocent remedies yet discovered. It is serviceable in most chronic distempers; and is reckoned so safe, that physicians sometimes prescribe it in a beginning *phthisis*, or consumption, when the lungs are but slightly affected. The effect of cold-bathing is attributed not only to its chillness, and constringing power, but in some measure to the weight of water. In tender constitutions, and some diseases, a *moderate warm bath* should be used before the cold bath, the approach to which ought to be gradual. People of rigid fibres,

fibres, and unsound viscera, are injured by the cold bath; fat people receive but little benefit from it; and, in general, no person ought to go into it before a gentle glow be excited by moderate exercise, when the stomach is most empty; and such evacuations as the patient's constitution requires ought to precede the use of it; which is beneficial, and may be safely continued when an universal glow succeeds the coming out of it. The cold bath is injurious, and should be discontinued, when the patient feels himself cold and numb after coming out of it. Though immersion in the cold bath is strengthening, a continuance in it is weakening, and in proportion to its duration.

Artificial baths are various, according to the various occasions; as aqueous baths, vaporous baths, &c.

BILE, a yellow bitter juice, separated from the blood in the liver, collected in the porus bilarius and gall-bladder, and thence discharged by the common duct into the duodenum. The influence of bile upon the animal œconomy is allowed to be very great. By its fermentative quality, it promotes digestion, in which respect it differs greatly from vegetable bitters, which are retarders of fermentation. It agrees with them, however, as a corrector of acidities. Bile speedily corrupts, but not to so high a degree as the blood or fibrous parts of the body. To this corruption of the bile, as one cause, Dr. Pringle attributes the paroxysms in bilious fevers; nay, all bilious disorders, as the cholera morbus, dysentery, &c. are thought to be principally owing to a redundancy or corruption of the bile. Hence the reason why these disorders are most frequent in hot countries, and in armies when much exposed to the sun, is, that the bile, if not more abundant, is, in such circumstances, more corrupted than usual. The bile is found in all animals: even pigeons, &c. have bile, though they have no gall-bladder; their liver being found very bitter. Mr. Sauvage observes, that the bile becomes one of the principal causes of thirst, by mixing with the salival juice. Sometimes the bile from yellow becomes greenish, and frequently pale, like the yolks of eggs, and that without any other apparent cause than a little motion, a convulsion, or a violent passion of the mind. This occasions many terrible diseases; as nausea, an abhorrence of food, anxiety, sighing, wind, diarrhœa, dysenteries, acute diseases, fevers, and convulsion.

BILIOUS FEVER, a term used to express such fevers as arise from an immediate effusion of the bile. These are often occasioned by violent fits of anger in the patient.

BOLUS, an extemporaneous form of medicine, of a soft con-

stence, somewhat more so than that of an electuary, and of the quantity of one dose to be swallowed down; contrived for those who dislike liquid medicines, as well as for the better conveyance of certain preparations of mercury, antimony, &c. which, by their weight, would sink to the bottom of the glass, if they were given in draughts.

BOTTLE, a small vessel proper to contain liquors, generally made of glass, or stone. Dr. Percival cautions persons against the practice of cleaning wine-bottles with leaden shot. It frequently happens (he thinks) through inattention, that some of the little pellets are left behind; and when wine or beer is again poured into the bottles, this mineral poison will slowly dissolve, and impregnate those vinous liquors with its deleterious qualities. The sweetness which is sometimes perceived in red port wine may arise from this cause, when such an adulteration is neither designed nor suspected.—Potash is recommended for cleansing bottles; a small quantity in the water will clean two gross.

BRONCHOTOMY, the operation of cutting into the wind-pipe, to prevent suffocation in the quinsy, in order to give passage for the breath, &c.

BURN, in a medicinal sense, denotes a solution of the continuity of a part of the body, by the force of fire. As burns nearly resemble inflammatory disorders in their several degrees, so they do also in the method of cure. In the slightest degree of burns, the best method is to have recourse to emollients and astringents. The best slight astringent is either common proof spirit, or rectified spirit of wine, or, when it is necessary, spirit of wine camphorated: these may be applied to the part with linen rags, as may also the pickle of cabbage, or litharge of vinegar; and these applications should be repeated as there may appear to be occasion. The vulgar method of holding the injured part, when in a hand or finger, to the fire, as long and as near as can be borne, is often attended with success.

BUTTER is a fat unctuous substance, prepared or separated, from milk: it is constantly used in food from its agreeable taste; but to be wholesome, it must be very fresh and free from rancidity; and also not fried or burnt; otherwise its acrid and even caustic acid, being disengaged, obstructs digestion, renders it difficult and painful, excites acrid empyreumatic belchings, and introduces much acrimony into the blood. Some persons have stomachs so delicate, that they are even affected with these inconveniences by fresh butter and milk. This observation is also applicable to oil, fat, chocolate, and in general to all oleaginous matters.

CACHEXY, in medicine, an ill state or disposition of body, wherein the nutrition is depraved throughout the whole habit; accompanied with a swelling, or bloating of the fleshy parts: a flaccid state of the body, easily perceived externally, and arising from a viscosity of the juices, and a remission of the tonic motions of the parts.

CALCAREOUS, something partaking of the nature and qualities of calx or lime. Thus we say a calcareous earth stone, &c.

CANKER, in medicine, is popularly used for a gangrene, or beginning of mortification.

CANTHARIDES, in medicine, a kind of poisonous insects, having wings and feet like beetles, much used as an epispastic for the raising of blisters. The stimulating power of cantharides is caused by a very acrid resinous substance contained in these insects. Cantharides, also called Spanish flies, though they ought rather to be denominated Spanish beetles, are produced from a kind of little worms, hatched on wheat, the leaves of poplar, &c. There are various kinds of cantharides, but all of a greenish and golden hue; the best are those which appear with different colours, having yellow lines running across their wings.

CAPILLARY VESSELS, in anatomy, are the least, minutest, insensible ramifications of the veins and arteries; which, when cut or broken, yield but very little blood. The capillary vessels should be conceived as vastly finer than hairs: they are best compared to the threads of cobwebs.

CAPUT MORTUUM, in chymistry, the scæces or dregs, remaining of any substance, after all the volatile and humid parts, as the phlegm, spirit, salt, &c. have been extracted therefrom.

CARNIVOROUS, a term applied to those animals which naturally seek and feed on flesh. It has been much disputed whether man is naturally carnivorous: some contend that the fruits of the earth were intended as his sole food; that necessity in some places, and luxury in others, first prompted him to feed on his fellow animals. Pythagoras and his followers abstained from all flesh, from the notion of the transmigration of human souls, upon their leaving the body, into the souls of brutes. Gassendus insists that man should not be carnivorous, because his teeth, except the four canini, are not such as carnivorous animals are furnished with. When we do feed on flesh, it is not without a preparatory coction,

by boiling, roasting, &c. And even then, Dr. Drake observes, it is the hardest of digestion of all foods, and is prohibited in many diseases: and children are averse to animal foods till their palates become vitiated by custom; and the breeding of worms in them is generally ascribed to the too hasty eating of flesh. To these arguments to prove that man is not naturally carnivorous, Dr. Tyson answers, that if man had been designed by nature not to be carnivorous, there would doubtless have been found some where in the globe, people who do not feed on flesh; and as history seems not to furnish any such instance, may we not say, that what is done universally by the whole species, is natural? For what the Pythagoreans did in abstaining from flesh, was on the principle of a transmigration, a mistake in their philosophy, not a law of nature; and though in some countries, men feed more sparingly on flesh than in others, this is the effect of choice from the advantage they perceive by it. Upon the whole, since man has all manner of teeth, fit for the preparation of all sorts of food, should it not rather seem that nature intended we should live on all? And as the alimentary duct in the human kind is fitted for digesting all sorts of food, may we not rather conclude that nature did not intend to deny us any?

CARTILAGE, in anatomy, is a smooth, solid, uniform, flexible, elastic part of an animal; softer than a bone, but harder than any other part. Cartilages have no cavities for marrow; nor any membranes, or nerves, for sensation. Their uses are to prevent the bones from being damaged or wounded by a continual friction; and to contribute to the well-forming of several parts; as the nose, ears, trachea, eye-lids, &c.

CATAPLASM, usually called poultice, an external medicine in the form of a pulp; of a soft consistence, like an unguent or ferate; composed of various liquors, parts of plants, &c. according to the variety of intentions. Its uses are to assuage pain, and soften, resolve, discuss, or suppurate matter collected in the external parts of the body. The common cataplasm for these intentions is composed of white bread, milk, yolks of eggs, saffron, and oil of roses.

CATHARTICS, or cathartic medicines, are such as promote evacuation by stool, being the same with what are denominated purgatives. They are of three kinds, mild, moderate, and violent: the first purge gently, as cassia, manna, rhubarb, tamarinds, senna, &c. The second pretty briskly, as jallap, scammony, &c. The third violently, as colocynth, hellebore, laureola, &c.

CAUSTICS, those medicines which by their violent activity, and

and the heat thence occasioned, destroy the texture of the parts to which they are applied. These amount to the same of what are otherwise denominated *pyrotics* and *escharotics*. They are also usually confounded with cauteries, though some distinguish them; restraining caustics to those medicines which do not burn through the part, nor leave an eschar, and cauteries to those which do. Caustics are used to eat off proud fungus flesh; they also penetrate within hard callous substances, and liquify the humours; and are particularly applied in abscesses, and imposthumation, to eat through the suppurated matter, and give it vent: sometimes, also, to make issues, in parts where cutting is difficult, or inconvenient.

CEPHALIC, in a general sense, signifies any thing belonging to the head. Cephalic medicines are remedies for disorders of the head. They are generally of a volatile, spirituous, or aromatic nature, or at least they are joined with such; and are supposed to be of service by the volatility of their particles insinuating into the nerves, and mixing immediately with the animal spirits, as well as by the common circulation.

CHALK, a white earth found plentifully in Britain, and other parts of Europe. In medicine, it is one of the most useful absorbents, and is to be considered simply as such. The astringent virtues which some have attributed to it have little or no foundation.

CHALYBEAT, in medicine, something partaking of the nature of steel or iron; or that is impregnated with particles of those metals. Chalybeats act principally as absorbents and deobstruents.

CHANCER, in medicine, a malignant ulcer, which gnaws and eats the flesh, usually occasioned by some venereal disorder.

CHYLE, in the animal economy, a milky fluid, secreted from the aliments by means of digestion.

COCHINEAL was long supposed to be a vegetable production, a seed, or an excrecence of a plant; but it is now well known to be an insect, living upon the opuntia, or Indian fig, on the juice of which it feeds. The cochineal insects are bred in the kingdom of New Spain; and Hambato, Loga, and Tucuman in Peru; but it is only in Oaxaca that they are gathered in large quantities, and form a branch of commerce; the cultivation of these little creatures being there the chief employment of the Indians. From this insect is formed a valuable drug; which is esteemed a great cordial, sudorific, alexipharmic, and febrifuge. It is also much used by dyers and painters; the high crimson colour it affords being hardly equalled

equalled by any thing; and, according to their different management of it, making all the kinds and degrees of red.

COMA, a sort of sleepy disease, or a kind of apoplexy; always bringing on a violent propensity to sleep, whether sleep ensue or not.

CONCENTRATION, in medicine, when by an addition of earthy, dry, and absorbent substances, the acid of any liquor is attracted and imbibed, whilst the aqueous parts are left, and the acid as it were conveyed into another body, this is called *concentration*. The use of this species of concentration is obvious, in cases where acidities are to be subdued or corrected: hence absorbents are called concentrating medicines.

CONFECTION, a kind of compound medicine, of the consistence of a soft electuary. There are several electuaries which bear the name of confections; some of which are corroborative, and others purgative.

CONSERVES are a kind of dry confections made with sugar and pastes of flowers or fruits, &c. The apothecaries, under the title of conserves, comprehend all kinds of confections, both dry and liquid; whether of flowers, fruits, seeds, roots, barks, or leaves, prepared with sugar or honey, to preserve, &c.

CONFLUENT, an epithet applied to that species of small-pox, wherein the pustules run into one another.

CONTAGION, infection, or the communicating or transferring a disease from one body to another. Contagion, in some diseases, is only produced by an immediate contact, or touch; as the madness of a dog, which is communicated by biting. In others it is conveyed by infected cloaths; as the itch. In others the contagion is transmitted through the air to a great distance, by means of steams or effluvia exhaling from the sick; as in the plague, and other pestilential distempers; in which case the air is even said to be contagious, that is, full of contagious particles.

CONTUSION, bruise, a solution of continuity either in flesh or bone, occasioned by a fall, a blow, or a violent pressure, whereby the flesh is damaged, but without any external wound or rupture, or any manifest loss of substance; and effusion of blood ensues from several little broken vessels, so as to discolour the skin, though it doth not make its way through the pores. Contusions may also be defined a particular sort of tumour, attended with a stagnation of the blood in the part affected, and generally with an inflammation, discolouration, and pain. Contusions are either external or internal. If, from an external injury, there proceeds an internal disorder, as an asthma, spitting of blood, and the like, the contusion is said to be internal.

CONVA-

CONVALESCENCE, the insensible recovery of health; or that state in which, after the cure of a disease, the body, which has been reduced, has not yet regained its vigour, but begins to resume its powers.

CORDIAL, cardiac, a comfortable remedy, affording sudden strength and chearfulness, by raising the spirits when depressed by too much exercise, or some disease. Cordials act by giving a sprightliness and force to the fibres; and by some of their fine particles directly entering the pores of the nerves and minute vessels, and so mixing immediately with the fluids. Thus, some of the particles of the spirit of lavender when dropped into sugar, and taken, are supposed instantly to enter the nerves of the palate. Spirituous liquors are supposed to act instantly on the palate, and on the nervous coat of the stomach, and often prove an immediate cordial. In faintings, where the circulation of the blood is languid, sal volatile, oleosum, or spirit of hartshorn, dropped in cold water, and drank quickly, augment the circulation, and prove cordial.

CORRECTORS, such ingredients in the composition of a remedy as guard against, or abate the force, or dangerous qualities of others.

CORROSION, the act of corroding, or gnawing away substances, by little and little.

CRANIUM, in anatomy, an assemblage of bones, inclosing the brain and cerebellum, commonly called the skull.

CRUDE antimony is that which comes immediately from the mines, without any other preparation than once melting.

CRUDE humours, in medicine, are such as want that preparation and elaboration which they usually receive from a thorough digestion.

CUPPING, a chyrurgical operation for the discharge of blood and humours by the skin.

CUTANEOUS, concerning the cutis, or skin; thus we say, the itch is a cutaneous disease.

CUTICULA, cuticle; in anatomy, a thin pellucid membrane, serving as a cover to the cutis or skin. The cuticula is that outermost covering of the body, called also epidermis, but more commonly the scarf-skin; or that soft tegument which rises in a blister upon a burn, or the application of a cautery. It sticks close to the surface of the cutis, or true skin, to which it is also tied by the vessels that feed it; though they are so small as not to be seen. When examined by a microscope, it appears to consist of several layers of extremely small scales, which cover one another, more or less, according to its different thickness; and in the lips, where the scales appear

pear plain, because the skin is thinnest, they do but barely touch. Leusenhoeck reckons, that in one cuticular scale there may be five hundred excretory ducts; and that a grain of sand will cover two hundred and fifty scales; so that one grain of sand will cover 125,000 pores, or orifices, through which we daily perspire.

CUTIS, the skin, or body of vessels immediately under the scarf-skin. Dr. Hunter informs us, that when the skin is once destroyed it is never regenerated; and that the cicatrix is hardened flesh. The diseases of the cuticula and cutis are the itch, leprosy, small-pox, measles, scarlet-fever, and erysipelatous inflammations.

DECOCTION. The art of boiling any thing in water, in order to extract the virtues out of it, for some medicinal purpose; or the water itself in which the substance has been boiled.

DEFLUXION, a flowing of some humour, as rheum in a catarrh, &c. The word is formed from the Latin *defluo*, I flow down, the humours falling upon some part where they are gathered together. Defluxions on the lungs are dangerous. Defluxions on the eyes produce a weakness of sight, and sometimes blindness.

DEGLUTITION, the act of swallowing the food. Deglutition succeeds mastication, and is followed by concoction. Dr. Duncan, in his medical cases, 1778, mentions the case of a difficult deglutition, supposed to arise from a venereal infection, in which electrical sparks applied to the fauces, were of considerable service, and by degrees removed the complaint.

DELIRIUM, from *deliro*, to rave or talk idly. When the ideas excited in the mind do not correspond to the external objects, the patient is said to be delirious.

DENTITION, or teething, the act of cutting the teeth in children. To render the dentition less difficult, parents ought to take care that their children's food be light and wholesome, and that their nerves be braced by sufficient exercise without doors, use of the cold bath, &c. Teething-necklaces, or other nonsensical amulets worn for accelerating dentition, are now deservedly held in derision.

DEOBSTRUENTS, medicines which remove obstructions.

DEPURATION, the same as clarifications or purification; the purging any substance of the lees, and other coarse and excrementitious parts contained therein. Fermentation serves to depurate liquors. Syrups, juices, &c. are depurated by passing them through the straining bag.

DERIVATION,

DERIVATION, in medicine, is when a humour, which cannot conveniently be evacuated at the part affected, is attracted from thence and discharged elsewhere; thus a blister is applied to the neck to draw away the humour from the eyes.

DESQUAMATION, the flaking or scaling of carious bones.

DESSICATIVE, or desiccative, a remedy possessing the virtue of drying up superfluous moisture; used to skin over old sores, &c. Hence a desiccative unguent, &c.

DETERSIVES, the same with detergents. A clyster is a deterfive medicine, which cleanses the lower venter.

DIAGNOSTIC, in medicine, a term applied to those signs or symptoms which indicate the present state of a disease, its nature and cause. The physicians have *diagnostic* as well as *prognostic* signs; the first with regard to the present state of the disease, and the patient; and the second to the future.

DIAPHORETIC, a term applied to remedies which promote the expulsion of humours by *insensible* perspiration. It is nearly of the same import as sudorific; except that the latter promotes *sensible* perspiration, and the former insensible perspiration. They differ only in their degree of activity.

DIET-DRINKS, a form of medicine including all the medicated wines, wheys, and ales used in chronic cases. They require a continuance to answer any good purpose. In acute cases they are of no use; but if the disorder of a constitution is gradually to be gained upon, much service may be had from them.

DIGESTION, that change of the food taken in at the mouth, which it undergoes in the stomach, to afford proper matter to compose or increase an animal, till it arrives at its destined bulk; and to repair the loss of those particles which the body, in its natural state, necessarily undergoes.

DISCUTIENTS are either repellers, or remedies proper to open the pores, and evacuate the redundant or peccant humours of the body by insensible perspiration or otherwise. In this last sense, discutients are the same with what are otherwise called diaphoretics.

DISEASE, that state of a living body wherein it is deprived of the exercise of any of its functions, whether vital, natural, or animal. Or it is a disorderly state of the solid and fluid parts, whereby all, or some of the functions either of the body or mind, or both, are either abolished or impaired. Of all animals man is subject to the greatest number of diseases; and among men the most studious and speculative are the most exposed to them. Other animals have their diseases, but they are small in number. Some diseases only impair the use

of the part immediately affected; as the gout, the ophthalmia, &c. Others destroy it entirely, as the palsy, &c. By some the whole body is affected, as a fever, apoplexy, epilepsy, &c. By others a party only is impaired, as the asthma, dropsy, colic, &c. Some only attack the body, as the gout; others disturb the mind, as melancholy, delirium, &c. The colder the country, in general, the fewer and the less violent are the diseases. Scheffer informs us, that the Laplanders are unacquainted with the plague, or fevers of the burning kind, and that they are not subject to half the disorders that we are.

DISLOCATION, the violently putting a bone out of joint. It is usually called luxation, by the faculty. Mr. Freke invented an instrument for the reduction of dislocated shoulders, which is described in the Philosophical Transactions, No. 470.

DISPENSARY, or dispensatory, a name applied to divers collections of recipes for compound medicines, specifying the ingredients, propositions, and circumstances of the preparation and mixture; the same with what we otherwise call a *pharmacepeia*. Such are the dispensaries of the college of physicians at London and Edinburgh, Quincy, &c. The apothecaries, in and near London, are obliged to make up their compound medicines according to the formulas described in the college dispensary, and are enjoined to keep always in their shops all the medicines therein enumerated.

DISSECTION, in anatomy, the operation of cutting and dividing the parts of an animal body, with a knife, scissors, &c. in order to consider each of them apart. Le Gendre observes, that the dissection of a dead human body was held a sacrilege till the time of Francis I.; and that he has seen a consultation held by the divines of Salamanca, at the request of Charles V, to settle the question, whether or no it were lawful, in point of conscience, to dissect a human body in order to learn its structure.

DISTICHIASIS, in medicine, a disorder of the eye-lids, wherein they have two rows of hairs, instead of one.

DORSAL, any thing belonging to the back; as dorsal nerves, dorsal glands, dorsal muscles.

DOSE, the quantity of a medicine to be taken at one time. Dr. Cockburn has given us an essay towards determining the doses of purgative medicines, on mechanical principles; but after all that can be said on the subject, much must be left to the judgment and discretion of the person who administers the medicine.

EFFER.

E.

EFFERVESENSE, an intestine motion excited between the parts of two substances of different natures, when they reciprocally dissolve each other.

EFFLUVIA, in medicine, are the cause of various disorders, especially of the contagious kind. Hence arise spasms, obstructions, palpitations, a high degree of fever, or a languid circulation, chilness, or intense heats, and a variety of contrary symptoms, according to the different affections of the nerves. To putrid effluvia, we must attribute the gaol distemper, also called the hospital fever.

ELECTUARY, a form of medicine, consisting of powders and other ingredients, incorporated with some conserve, syrup, or honey, to be divided into doses resembling bolusses, when taken.

ELIXIR, a compound tincture extracted from many efficacious ingredients. It differs from a tincture, as that is drawn from one ingredient with the addition of another to open it; but an elixir is a tincture extracted from several ingredients at the same time.

EMBROCATIONS, the application of remedies, oils, spirits, decoctions, and other liquids by sprinkling or rubbing them on the part affected; usually termed irritation. Embrocations are indeed a kind of lotions, used to remove obstructions, relieve pains, numbness, and palsies.

EMBRYO, the first rudiments of an animal in the womb, when the several members are not distinctly formed: it is afterwards denominated a foetus.

EMETIC, a remedy which excites vomiting; or that purges the stomach by the mouth.

EMOLLIENTS, remedies which sheath and soften the asperity or sharpness of the humours, and, at the same time, relax and supple the solids.

EMPYEMA, pus, or purulent matter collected in the cavity of the breast, discharged there upon the bursting of some abscess or ulcer in the lungs, or membranes which inclose the breast; or formed from that inspissated serum, which Dr. Hunter says is found in large quantities in the cavities of the breast, belly, &c.

EPIDERMIS, in anatomy, the cuticle, or scarf-skin.

EROSION, in medicine, the act of sharp acrid fluids, or humours, gnawing and tearing off parts from the flesh, and other substances. Arsenic, and other poisons, make erosions in the intestines.

ERRHINES, medicines which when stuffed up the nose promote a discharge of mucus from that part. They are much safer than sternutatories in their effects. Errhines prepared of cephalic herbs are very serviceable in oppressive pains of the head, lethargic disorders, weakness of memory, stuffings of the head, and mucous defluxions of the eyes.

ERUPTION, in a general sense, implies a bursting forth or exclusion of something which was before covered or concealed. In medicine it denotes a sudden excretion of humours, as pus or blood, and any breaking out of pustules or spots; as in the small-pox, measles, fevers, &c.

ESCHAR, a hard crust or scab on the flesh, occasioned by a red-hot iron, a caustive medicine, or some corrosive humour within.

ESCULENTS, such vegetables as are fit for food, as cabbages, carrots, turneps, parsnips, artichokes, cauliflowers, asparagus, &c.

ESSENCE, in medicine, the purest, most subtil, and balsamic part of a substance, extracted from the rest by means of fire. Of these there are many kinds, drawn from flowers, fruits, &c. much used by the apothecaries, perfumers, &c. The principal of which are essence of rosemary, of turpentine, of cloves, of cinnamon, of anise, and of citron. The essences commonly sold by the perfumers are only the distilled oils of balm, and of bitter almonds; to which they give the smell of certain flowers; as violets, jessamin, cinnamon, &c.

EVACUANTS, proper medicines to expel, or carry off any ill, peccant, or redundant humours in the human body, by the proper outlets.

EVACUATION is a diminution of the animal fluids, in order to a discharge of some morbid or redundant matters; or only for thinning, attenuating, and thereby promoting motion and circulation.

EVAPORATION, an operation by which the more aqueous and volatile parts of fluids are spent, or driven away in steam, so that the remaining part may be stronger, or of a higher consistence than before.

EXCORIATION, the galling or rubbing off of the cuticle, or skin; especially of the parts between the thighs, or about the anus. In adults it is occasioned by riding, much walking, or other sharp exercise. In children, an excoriation of the parts is common near the pudenda, chiefly of the groin and scrotum; and also in the wrinkles of the neck, under the arms, and in other places, proceeding from the acrimony of the urine and sweat, and occasioning itching pains, crying, restlessness, &c.

EXCRES-

EXCRESCENCE, all superfluous or luxuriant flesh, or other matter, growing on any part of the body, beyond the common structure and disposition of nature. Wens, warts, flicules, polypusses, &c. are excrescences.

EXCRETION, the act of expelling or ejecting out of the body some useless or injurious humour. Most crises are effected by secretion; as fluxus of blood and urine, sweat, vomitings, loosenesses, &c. If the excretions are not regular, health cannot be preserved; and consequently, if they are too plentiful, defective, or suppressed, various disorders will be produced. If a person is costive, for example, some disease may generally be expected. As a man usually takes more food than is necessary to generate blood and serum, if common excretions are not sufficient to carry off superfluous humours, extraordinary ones sometimes happen, as the piles, &c.

EXPECTORANTS, medicines which promote expectoration.

EXPECTORATION, the act of bringing up phlegm, or other matters, out of the trachea, &c. by spitting, hawking, coughing, &c. It eases the lungs of the viscid or putrid matters which obstruct their vessels and straiten and discompose the breast.

EXPIRATION, in medicine, that motion in an animal whereby the air inspired into the lungs is expelled or thrown out. Respiration consists of two alternate motions of the lungs, corresponding to those of a pair of bellows: inspiration, by which the air is drawn in, and expiration by which it is driven out again.

EXPRESSED oils are such as are procured by pressing certain substances; as the oils of olives, almonds, &c.

EXTRACT, the purest part of a vegetable, or other substance, separated from the coarser, by dissolution and digestion, and after reduced into a thick moist consistence by distillation or evaporation of the humidity. Extracts are prepared from the bark, gentian, jalap, opium, &c.

EXTRAVASATION is a motion of the blood by which it breaks out of the veins and arteries, and either gathers and stagnates in some soft part, or is thrown quite out of the body. The common causes of extravasations are unnatural repletions and distensions of the vessels, or lacerations and erosions thereof. Bleeding is necessary in these cases to prevent the blood's accumulating so as to extravasate.

EXULCERATION, in medicine, the act of producing ulcers; as arsenic exulcerates the intestines; and corrosive humours exulcerate the skin. This term is also used for an ulcer itself.

FÆCES,

F.

FÆCES, the dregs, impurities, or sediment, remaining after the purer, more volatile, and fluid parts have been separated from any thing, by evaporation, dissolution, &c. as the fæces of wine, oil, &c. Fæces is also used for the gross impure matters, found at the bottom of the compositions and preparations of pharmacy, &c. This term is also applied to the excrements of an animal voided by stool.

FAINTING, a remarkable suppression of the animal spirits. As some people are extremely apt to faint, during the operation of bleeding, it is very proper, where plentiful bleeding is indicated, to perform that operation in bed. It may be necessary to observe also, that a person will bear the loss of a much greater quantity of blood if the stream is small, than by a large orifice, which some think necessary in order to make a more speedy revulsion. See *Pringle's Ob. on Dis. of the Army*.

FAT, in an animal body, a white and oily concrete substance collected in little membranous cells in many parts of the body. Strong exercise, an acrimonious state of the juices, and other similar causes, prevent the generation of fat: labours of the mind have also this effect, as well as labour or intemperance of the body. Though rest and a plentiful supply of food are sufficient to fatten brutes, with men it is often otherwise. Some birds grow fat in a very short time; ortolans in twenty-four hours, and larks still sooner.

FEBRIFUGE, a remedy efficacious for the cure of fevers.

FECULENT, a term applied to the blood and other humours, when they abound in dregs, or have not the proper degree of purity.

FERMENT, any thing which being applied to another, produces a fermentation therein; or any thing capable of exciting an intestine motion in the parts of another. Thus, acid in leaven is ferment which causes bread to rise or swell. The moisture in hay is a ferment which heats, and sometimes sets it on fire. Rennet is also a ferment, which curdles and breaks milk; and yeast is a ferment which sets wort into a fermentation.

FIBRE, in anatomy, a simple part of the animal body, called also filament; and when very small, fibrilla, or capillament. A fibre is a slender white thread, which, when wound up or interwoven, forms the various solid parts of an animal body; so that the fibres are the stamen of an animal. Nervous fibres are the minute threads of which the nerves are composed.

FILAMENTS,

FILAMENTS, a term of similar import with fibre, applied to those fine threads of which the flesh, nerves, skin, &c. are composed.

FILTRATION, the act of passing any liquor through a filtre, called also percolation, and transcolation. A commodious way of filtrating, is to fasten whited-brown paper over the mouth or aperture of a funnel; the smallness of the pores of this paper admits only the finer parts through, and keeps the rest behind. There are also filtrations through sand, pulverized glass, &c. Spirits of vitriol, salt, and nitre, are filtrated through a quantity of beaten glass in the bottom of a funnel. Filtration is also performed by a woollen or linen bag, called Hippocrates's sleeve: the choice of these must be directed by the liquor to be filtered.

FIT, in medicine, a paroxysm. Dr. Cheyne is of opinion, that fits of all kinds, whether epileptic, hysteric, or apoplectic, may be cured solely by a milk diet of about two quarts of cows' milk a-day, without any other food.

FLACCIDITY, in medicine, the opposite to rigidity, a disorder of the fibres or solid parts of the body. Flaccidity is cured by cardiacs, exercise, friction, a dry warm air, proper food, &c. "By exercise the flaccid nerves grow firm."

Armstrong.

FÆTOR, stinking or fetid effluvia, proceeding from the body or the parts thereof.

FÆTUS, the young of all viviparous animals whilst in the womb, and of oviparous animals before they are hatched. Strictly, the name is applied to the young after it is perfectly formed; till which time it is more properly called embryo.

FOMENTATION, a fluid externally applied, as warm as the patient can bear it, in the following manner. Two flannel cloths are dipped into the heated liquor, one of which is wrung as dry as the necessary speed will admit, and immediately applied to the part affected; it remains on the part till the heat begins to go off, and the other is in readiness to apply on its removal. The flannels are thus alternately applied, so as to keep the affected part constantly warm with them. This is continued fifteen or twenty minutes, and repeated two or three times a day. Every intention of relaxing and soothing by fomentations, may be answered as well by warm water alone, as when the whole tribe of emollients are boiled in it; but when discutients and antiseptics are required, ingredients adapted to the purpose must be called in. The degree of heat should be such only as will produce a
3 pleasing

pleasing sensation: too great heat destroys the effects intended by the use of fomentation, and has indeed an opposite tendency.

FRACTURE, in surgery, a breach or rupture of a bone.

FRECKLES, small dusky spots on the skin of the face or hands, particularly in persons who have fair skins, after being exposed to the sun in hot weather. They are found more about the nose, and backs of the hands, than any where else, because the skin is more stretched there, and consequently the pores are more open to receive the dust, &c. *Monf. Homberg* says, that bullock's gall mixed with alum, after the alum is precipitated, and exposed three or four months to the sun, in a close phial, is one of the best remedies known for freckles. Lemon-juice, mixed with sugar and borax finely powdered, after digesting about eight days in a glass phial, is also said to be a good remedy against freckles.

FUMIGATION, in medicine and chymistry, is applied to things taken in the way of fume, or smoke, or that are converted into smoke or steam.

FUNGOUS flesh, a spongy excrescence, popularly called proud flesh, frequently growing on the lips of wounds.

FUNGUS, in surgery, a fleshy tumour, very soft and pale, arising on the membranes, tendons, and other nervous parts, in consequence of ulcers, wounds, contusions, and strains.

G.

GALENIC, or *Galenical*, in medicine, the manner of treating diseases on the principles of Galen. Galenic is often used as contradistinguished from chymical. In this sense, galenical medicine, and galenical pharmacy, are those which proceed upon the easier preparations of herbs, roots, &c. by infusion, decoction, &c. and making their remedies effectual by combining and multiplying ingredients: in opposition to the chymical medicine, or pharmacy, which torture the materia medica by fire, and draw their virtues by elaborate preparations, as calcination, fermentation, &c. The Galenists and chymists, however, are now reconciled, most of our physicians using the preparations of both.

GALLING, among children, is applied to inflammations and excoriations in several parts of their bodies. Those in the lower parts usually proceed from the acrimony of the urine, &c. This may be cured by washing the parts gently with warm water two or three times a-day, which dissolves and drinks up the acrimonious salts of the urine lodged therein. Nurses usually dissolve a little fuller's earth in the water, and apply

apply it to the part after being well washed. Chalk, cerufs, or calcined ſlate, finely powdered, will anſwer the ſame purpoſe.

GANGRENE, in ſurgery, a dangerous degree of inflammation, wherein the parts affected begin to corrupt and putrify. By the microſcope, a gangrene has been diſcovered to contain an infinite number of ſmall worms, engendered in the morbid fleſh. To ſtop the progreſs of the gangrene, phyſicians preſcribe, internally, ſudorifics, and alexipharmics; externally, decoctions of quick-lime, either ſimple, or with the addition of ſulphur, mercurius dulcis, and ſpirit of wine camphorated.

GARGLE, a liquid form of medicine for diſeaſes in the mouth, gums, throat, &c. They conſiſt of honey, ſalt, ſyrups, ſpirits, vinegar, waters, and decoctions, and are uſed for cleaning and lubricating the parts. Gargles are peculiarly uſeful in fevers and ſore throats, and they are eaſily procured and prepared. Sir John Pringle recommends a decoction of figs in milk and water, with the addition of ſal ammoniac, as an uſeful gargle in the inflammatory quinſey, or ſtrangulation of the fauces.

GASTRIC juice, an appellation given by ſome to the proper juice of the ſtomach, which is a thin, pellucid, ſaltish liquor, diſtilling conſtantly from the glandulous kernels of the ſtomach, for the diſſolution, mixture, and dilution of our food, and is highly ſerviceable in digeſtion.

GASTROTOMY, the operation of cutting open the belly, denominated the Cæſarean ſection.

GESTATION, the ſtate of a woman during pregnancy, or the interval between conception and delivery.

GLAND, in anatomy, a ſoft, ſpongy kind of ſubſtance, ſerving to ſeparate ſome particular humour from the maſs of blood. The lateſt authors conſider the glands as ſieves, the perforations of which, being of different ſizes, though of the ſame figure, only ſeparate ſuch particles as have diameters leſs than their own. The glands are of ſeveral kinds, in reſpect to their form, ſtructure, and office.

GLANS, in anatomy, the parts covered with the prepuce.

GLUTTONY, voracity, or a propenſity to gormandizing. A morbid ſort of gluttony, called, "*fames canina*," dog-like appetite, ſometimes occurs, and renders the perſon ſeized with it an object of pity. Habitual gluttons may be reckoned among the monſters of nature, for thus endeavouring to create a dearth or famine.

GUM, a concrete vegetable juice, becoming viſcous and tenacious when moiſtened with water; diſſolving in water into a

liquid, more or less glutinous in proportion to the quantity of the gum; not dissolving in vinous spirits or in oils. The true gums are those of arabic, tragacanth, fenega, and those of cherry and plum trees, &c. All others have more or less of resin in them. The virtues of gums are similar to all mucilaginous substances in general, vegetable and animal. The more glutinous vegetable productions are called *gums*; those which are less so are called *mucilages*.

H.

HECTIC, or Hectic fever, a slow habitual fever, seated on the solids, and gradually preying upon their substance.

HEPATIC, any thing belonging to the liver. Hepatitis, in medicine, is an inflammation of the liver.

HERNIA, a descent of the intestines or omentum out of their natural place; or rather the tumour formed by that descent, usually called a rupture.

HOARSENESS, a deficiency of voice, sometimes accompanied with an almost unintelligible roughness and asperity.

HYPOCHONDRIA, in anatomy, a space on each side of the epigastriac region, or upper part of the lower belly.

HYPOCHONDRIAC affection, a disease also called the spleen, vapours, &c. It is a very comprehensive disorder, and is variously denominated according to the various symptoms which attend it, and the various parts in which it arises. When seated in the hypochondriac regions, or arising from some disorder of the spleen, liver, &c. it is properly called the hypochondriacal disease, spleen, &c. When conceived as owing to some disorder of the womb, it is called the hysteric affection, &c. And when accompanied with flatulent rumblings in the intestines, belchings, &c. it is called the vapours.

HYSTERIC affection, a disease incident to women, differing from hypochondriac affection only in point of relation and circumstance. The hysteric is properly a species or branch of the hypochondriac, peculiar to women, and supposed to arise from some disorder of the womb.

I.

ICHOR, a thin watery humour, like serum, and is also frequently used for a thicker kind, flowing from ulcers; frequently termed sanies.

ILIAC passion, a dangerous kind of colic, taking its name from the intestine ilion, on account of its being usually affected in this disease.

IMPOTENCE,

IMPOTENCE, in general, denotes want of strength or ability to perform any thing. It is a term, however, more particularly used for a natural inability to coition. It is the same with respect to men, as sterility in women; that is an inability of propagating the species. Many are the causes of impotence, as a natural defect in the organs of generation, accidents, or diseases, early and immoderate venery, &c. Mr. John Hunter, in his treatise on the venereal disease, considers impotence as depending upon two causes. One he refers to the mind, the other to the organs. As to impotency depending on the mind, he observes, that as the "parts of generation are not necessary for the existence or support of the individual, but have a reference to something else in which the mind has a principal concern; so a complete action in those parts cannot take place without a perfect harmony of body and of mind: that is, there must be both a power of body and disposition of mind; for the mind is subject to a thousand caprices which affect the actions of these parts. The state of a man's mind respecting his sister takes away all power. A conscientious man has been known to lose his powers, on finding the woman he was going to be connected with unexpectedly a virgin. As these cases do not arise from real inability, they are carefully to be distinguished from such as do; and perhaps the only way to distinguish them is, to examine into the state of mind respecting this act. So trifling often is the circumstance which shall produce this ability depending on the mind, that the very desire to please shall have that effect, as in making the woman the sole object to be gratified. Cases of this kind we see every day." He then relates an extraordinary case to illustrate this subject, which our limits will not permit us to insert.

IMPREGNATION, the emission by which the female conceives, or becomes with young.

INCONTINENCE, in medicine, an inability in any of the organs to retain what should not be discharged without the concurrence of the will. But it is a term most frequently used with regard to an involuntary discharge of urine, otherwise called a diabetes.

INDIGESTION, a crudity, or want of decoction.

IRRITABILITY, in anatomy and medicine, a term to denote an essential property of all animal bodies; and which, Dr. Haller says, exists independently of and in contradistinction to *sensibility*. This ingenious author calls that part of the human body *irritable*, which becomes shorter upon being touched; *very irritable*, if it contracts upon a slight touch;

and the contrary, if by a violent touch it contracts but little. He calls that a sensible part of the human body, which, upon being touched, transmits the impression of it to the soul.

ISCHURIA, a disease consisting in an entire suppression of urine. It may be occasioned by any thing which may obstruct the passages of the reins, ureters, or the neck of the bladder, as stone, sand, mucus, &c. It may arise from an obstruction of the nerves which pass to the reins or bladder. It may also be produced by the too great distension of the bladder.

L.

LABORATORY, or *Elaboratory*, a house or place where chymists perform their operations, supplied with furnaces, vessels, &c. and in general the term laboratory is applied to any place where physical experiments in pharmacy, &c. are performed. Laboratories are constructed according to the nature of the operations to be performed in them. Where the purposes are merely experimental, one or two furnaces of the portable kind will be sufficient. Shelves are necessary for holding vessels with the products of the different operations. Mortars, filters, levigating stones, &c. must also be procured.

LACTEALS, or *Lacteal Veins*, are a kind of long slender tubes, for conveying the chyle from the intestines to the common reservoir. They are denominated veins, because their valves are disposed like those of the ordinary blood veins, and because the fluid they contain runs from smaller into larger tubes.

LACTEAL FEVERS, a term to express what the women call *milk fevers*, or such as attend the difficult ingress of milk to the breasts of lying-in women.

LASSITUDE, is that weariness or heaviness which proceeds from a disordered state of body, and not from exercise; either from an increase of bulk, a diminution of proper evacuation, or too great a consumption of that fluid which is necessary to maintain the force and spring of the solids, as in fevers and convulsions; or from a vitiated secretion of that juice, whereby the fibres are not supplied in due quantity or quality.

LAUGHTER, an action peculiar to man. It is attributed to the fifth pair of nerves, which sending branches to the eye, ear, lips, tongue, palate, and muscles of the cheeks, parts of the mouth, præcordia, &c. there arises a sympathy or consent between all these parts; so that when one of them is acted upon, the others are proportionally affected. Hence a
favoury

savoury thing seen or smelt, affects the glands and parts of the mouth; and hence any thing seen or heard that is shameful, suffuses the cheek with blushes. What causes sadness also affects the præcordia, and shews itself by causing the glands of the eyes to emit tears.

LENITIVE, denotes a softening, resolutive medicine, which moistens the diseased parts, and dissipates any sharp humour that may be collected therein.

LEPROSY, a foul cutaneous disease, appearing in dry, white, thin, scurfy scabs, over the whole or part of the body, attended with vehement itching and pain. It seems to arise from a great obstruction of perspiration, and a defective serum.

LETHARGY, in medicine, a disease consisting of a profound drowsiness, from which the patient cannot be roused without difficulty; and, if awaked, he appears stupid, and almost instantly sinks into sleep again. Boerhaave supposes the lethargy to be a gentle apoplexy, arising from the same causes, and ought to be treated in the same manner.

LIGATURE, in surgery, a cord, band, or string, or the binding any part of the body with a band, fillet, &c. whether consisting of leather, linen, or any other substance.

LITHOTOMY, in surgery, an operation performed on the human body, to extract the stone from the bladder.

LUES, in a general sense, implies a disease of any kind; but in a more particular sense, it is confined to contagious and pestilential diseases: thus the *lues Gallicæ*, or *venerea*, signifies the venereal, or French disease.

LYMPHATICS, in anatomy, the vessels in which the lymph, a thin transparent humour, is contained, and the glands by which it is separated in human and other bodies.

M.

MANIA, or madness, in medicine, the most violent and acute species of delirium, produced by a perturbation of the imagination and judgment.

MATERIA MEDICA, a general name for every substance employed in medicine, and by some extended even to aliment.

MELANCHOLY, a low kind of delirium, usually attended by imaginary fear and grief.

MEPHITIC, a name applied to any kind of noxious vapour, though usually applied to that species of vapour called fixed air.

MESENTERY,

MESENTERY, in anatomy, a fatty membranous substance in the middle of the intestines, so called from its situation. It is nearly of a circular figure, with a narrow production; to which the end of the colon, and the beginning of the rectum are annexed.

MINERAL WATERS, receive their peculiar principles by passing through earths containing salts, or pyritous substances, which are in a state of decomposition. Many of these waters have been accurately analysed by able chymists and physicians; but we are still very far from having all the certainty and knowledge that might be desired on this important subject; for this kind of analysis is perhaps the most difficult of any in chymistry. Almost all mineral waters contain several different substances, which being united with water, form with each other numberless compounds. In some mineral waters, certain volatile and elastic principles may be perceived, by a very sensible piquant taste: this principle is called the *gas*, or *spirit of waters*. The waters containing this principle are generally lighter than pure water. They sparkle and emit bubbles, at their spring, but especially when they are shook, and poured from one vessel to another. They sometimes break the bottles containing them, even when they are well corked, as fermenting wines sometimes do. This volatile principle, and the properties of the waters dependant upon it, are lost merely by exposure to air, or by agitation.

MOLARES, an epithet given to the large teeth, commonly called the grinders.

MORBID, diseased, corrupt; a term applied either to an unsound constitution, or to those particular parts or humours that are affected by a disease.

MORTIFICATION, in medicine, a total extinction of the natural heat of the body, or a part thereof. There are two degrees of mortification; the one called a *gangrene*, which is a mortification in its beginning state; the other, a *sphacelus*, which is a finished mortification. In cases of a *sphacelus*, where the parts are become absolutely dead, and wholly without sense, and soft, so as to retain the impressions made by touching with a finger, and are plainly fetid and corrupted, all the medicines in the world will be ineffectual to restore the part; and the only miserable remedy of preserving the rest of the body, is that of cutting off the affected place, to prevent the mortification from spreading further.

MUCILAGE, any viscid or glutinous liquor. It particularly imports the liquor which chiefly serves to moisten the ligaments and cartilages of the articulations, and is supplied by the mucilaginous glands.

MUCUS,

MUCUS, a mucilaginous liquor secreted by certain glands, serving to lubricate many of the internal cavities of the body. It is sometimes limpid and colourless, and sometimes assumes a thick consistence, and whitish colour, like pus. The importance of distinguishing *mucus* from *pus* was proposed as the subject of prize-disputation, by the Æsculapian Society of Edinburgh, when the prize was obtained by Mr. Charles Darwin, of Litchfield.

MUSK, a kind of perfume of a very strong scent, and can only be rendered agreeable by mixing it with some other perfume. It is found in a kind of bag, or swelling, of nearly the magnitude of a hen's egg, towards the genital parts of a wild beast of the same name. These animals are very common in the kingdom of Bantam, Tonquin, &c. but those from the kingdom of Thibet furnish the best musk. This perfume is the strongest of all known odours, and it is so fixed and permanent, that at the end of several years it seems to have lost no part of its activity.

MUSTARD, *Mustard* seed, one of the strongest of the pungent, stimulating, diuretic medicines, which operate without exciting much heat. A spoonful of it, unbruised, is sometimes taken in paralytic, cachectic, and serous disorders: it is used as an external stimulant to benumbed and paralytic limbs; to parts affected with the rheumatism, and to the soles of the feet in the low stage of acute diseases, in order to raise the pulse. The bruised seeds give out readily to water almost the whole of their active matter. When added to boiling milk, they curdle it, and communicate their pungency to the whey. The powder of mustard-seed may be made into the consistence of a loch with warm water, into which a little sea salt has been dissolved. A common spoonful of this, or sometimes two, diluted with warm water, may be taken on an empty stomach; it operates as well as an emetic, and proves an excellent remedy in most nervous disorders, according to Dr. Monro, in *Med. Eff. Edinb. Vol. II.*

MYOPES, one who is short-sighted, familiarly called purblind. Myopes are properly those who see remote objects confusedly, and near ones distinctly.

N.

NARCOTICS, opiates, or medicines exciting drowsiness. They act by calming and diminishing the motion of the blood and spirits.

NEPHRITICS,

NEPHRITICS, medicines for diseases of the kidneys, especially the stone.

NEPHRITIS, a disease of the reins, kidneys, &c.

NERVE, a round, white, long substance, resembling a cord, composed of several fibres, deriving its origin from the brain, or the spinal marrow, and distributed throughout the several parts of the body; serving to convey a particular juice, by some called *animal spirits*, for the preservation of sensation and motion.

NIPPLE, papilla, a prominence arising from the middle of the breast, or mamma.

NITRE, or *Salt Petre*, a neutral salt, composed of nitrous acid, saturated with fixed vegetable alkali.

NODE, a tumour arising on the bones, generally proceeding from some venereal cause. This term is more particularly applied to the protuberances arising on the joints of old gouty people, formed into a stony sort of concretion.

NOSE, the organ of smell. It furnishes us with the sense of smelling; it serves us in the great office of respiration; and assists in modulating the voice: it receives many humours from the eyes, and adds to the beauty of the face. Among the Tartars, the greatest beauties are those who have the least noses. Ruybrock mentions the wife of the great Jenghiz Khan, as a celebrated beauty, because she had only two holes for a nose.

NOSOLOGY, a treatise on diseases, otherwise called Pathology.

NUTRITION, the accession of new parts to the body. To preserve life, it is necessary that a restitution be made to the juices and solids of the body, equal and similar to what is lost. Thus the lost juices are easily supplied by meat, drink, air, &c. taken into the stomach, digested, converted into chyle, then into blood, and thence secreted by the proper duct, and carried, by the action of the body, to the proper receptacles.

O.

OEDEMA, a whitish, soft, lax tumour, without any considerable change of colour, heat, pain, or pulsation, yielding to the pressure of a finger, the dent or impression of which it retains.

OEDEMATOUS, something of the nature of an œdema, as an œdematous arm, an œdematous leg, &c.

OESOPHAGUS, in anatomy, the gullet, a membranous passage, conveying our food from the mouth into the stomach.

OLFACTORY

OLFACTORY NERVES, the first pair of nerves springing out of the medulla oblongata; so called from their being the immediate instruments of smelling.

OPIATES, medicines which are thicker than a syrup, prepared with opium. They are formed of various ingredients, made up with honey or syrup. The term opiate is also used, in general, for any medicine administered to procure sleep, in whatever form it may be given.

OSSIFICATION, the formation of the bones, or more particularly the conversion of parts naturally soft to the consistency of bones.

OSTEOLOGY, that part of anatomy which shews the nature and fabric of the bones of the human body; their form, disposition, rise, articulation, &c.

OVIPAROUS, an appropriate term, applied to those animals which produce their young from the egg, as fowls, birds, insects, &c. Oviparous animals stand in opposition to those which produce their young alive, called viviparous animals, as man, quadrupeds, &c. They conceive eggs, which they afterwards bring forth, and from which, by the incubation of the parent, or some other principle of warmth, at length animals arise. Of the oviparous kind, beside birds, are serpents, lizards, crabs, lobsters, tortoises, &c.

P.

PAIN, is an uneasy sensation arising from some injury or accident in the nerves, membranes, vessels, muscles, &c. of the body. Some are of opinion that it consists in a motion of the organs of sense; others that it is an emotion of the soul occasioned by those organs. As the brain is the seat of sensation, so it is of pain.

PALATE, in anatomy, the flesh that composes the upper and inner part of the mouth.

PALPITATION, a beating or pulsation of any of the solid parts of the body, especially the heart.

PANACEA, an universal remedy for all diseases. Boerhaave opposes the notion of panaceas, but admits that several diseases may be cured by one medicine, but all by none. He says, the most universal remedies known are water, fire, mercury, and opium.

PAPILLÆ, little eminences arising from the subcutaneous nerves. They are the most numerous and conspicuous in the places of most acute sense, as the tongue, œsophagus, ventricle, small intestines, and tips of the fingers and toes, where the skin they are covered with is extremely thin.

These papillæ are supposed to be the immediate organs of feeling.

PECCANT, an epithet applied to the humours of the body, when they are offensive either in quantity or quality; or, in other words, when they are either morbid, or in too great abundance.

PECTORALS, or *Pectoral Medicines*, are such as are proper to strengthen and relieve the breast; or to cure diseases of the breast and lungs. They are intended either to attenuate, or to thicken the humours of those parts which occasion coughing, &c. and render them fit to be expectorated or spit out.

PEDILUVIUM, the bathing of the feet.

PERCOLATION, see Filtration.

PERIPNEUMONY, an inflammation of some part of the thorax, properly of the lungs, attended with fever, and difficulty of breathing.

PETRIFICATION, the conversion of wood, bones, &c. and other substances into stone.

PHAGEDÆNA, in surgery, a deep bloated ulcer, eating and corroding the neighbouring parts.

PHARMACOPŒA, a dispensary, or description of the preparations of several kinds of medicines, with their uses, &c.

PHARMACY, the art of preparing, preserving, and compounding substances for the purposes of medicine. It is generally divided into two branches, *viz.* Galenical and Chymical pharmacy.

PHLEGM, in the animal œconomy, is one of the four humours, whereof the ancients supposed the mass of blood to consist. Phlegm is otherwise called Pituita.

PHLEGMATIC, an appellation given to that temperament of body wherein phlegm is predominant, giving rise to catarrhs, coughs, &c.

PHRENITIS, or Phrenzy, in medicine, a constant and vehement delirium, or distraction, attended with an acute fever, raving, &c. It differs from the *mania* and *melancholy*, as these are without fever.

PHYSIOGNOMY, the art of knowing the temperament or disposition of a person, from observing the lines of his face, and the characters of its members or features. This science appears to have occupied much of the attention of ancient philosophers; and it may perhaps be admitted, that of all the fanciful arts of the ancients, diffused among the moderns, there is none that has so much foundation in nature as this. There is an apparent correspondence between the face and the mind: the features and lineaments of the one are directed by the motions and affections of the other. There is

even

even a peculiar arrangement of the members of the face, a peculiar disposition of the countenance, to each particular affection, perhaps to each particular idea of the mind. Not many years ago, M. Lavater, of Zurich, attempted to revive the business of physiognomy, and published a large treatise on the certainty and utility of the art, illustrated with numerous engravings. We have only room to make a short extract from the reasons he assigns for believing in the art:

“Every moment we are acting upon physiognomical principles, without being aware of it; and not men only, but the brutes also, even insects, both know their most convenient food, and their enemies, by the outside. What are we doing when we choose out some fruits as the best, or when we prefer one horse to another, but judging, from the outside, of the internal qualities? We then certainly act the physiognomist.”

PITUITA, one of the four humours in the bodies of animals, on which their temperament is supposed to depend. The pituita, called phlegm, is properly the most viscid and glutinous part of the blood separated in the largest glands. Pituita is supposed to be the prevailing humour in cold heavy people, inclined to be studious and serious. The pituita, or phlegm, discharged at the nostrils, is separated in the membranes that lines the cavity of the nose, cheeks, &c. Its use is to keep that membrane soft, and defend it from the air, &c. which passes this way in breathing, when the mouth is shut.

PLENITUDE, the quality of a thing that is full, or that fills another. It is principally used for a redundancy of blood and humours.

PLETHORA, in medicine, such an abundance of good and laudable humour as proves hurtful to the animal functions. Plethora is chiefly understood of the blood, but sometimes of the other humours.

PLEURA, a membrane which lines the inside of the cavity of the breast, and incloses the parts therein contained.

PORES, in anatomy, certain open spaces between the parts of the skin, whereby we sweat or perspire, &c. The pores are most remarkable in the hands or feet. By viewing the palm of the hand with a moderate glass, after washing it well, we perceive innumerable small ridges, of equal size and distance, running parallel to each other, especially on the lips and joints of the fingers. The pores serve as a convenient outlet for the more noxious parts of the blood, which, by the continual use of the hands and feet, are plentifully brought into them: whence in hypochondriac and hysteric people, there is a continual burning in the palms and soles. In the stop-

page or constriction of the pores of the skin, that disease which we popularly call a cold, is generally supposed to consist; though Dr. Keill maintains a contrary opinion, in a dissertation at the end of his *Medicina Statica Britannica*.

PRECIPITANT, in medicine, is used for a remedy which separates and precipitates any heterogeneous matter contained in the mass of blood: and thereby abates any irregular fermentations which the matter has excited. Among the number of precipitants are ranked hartshorn, crab's eyes, ivory, barks of oak and guaiacum, iron, quinquina, chalk, &c.

PREPUCE, in anatomy, the foreskin.

PRESCRIPTION, in medicine, the art of assigning an adequate remedy to a disease, from an examination of its symptoms, and acquaintance with the virtues and effects of the materia medica. The merits of a prescription consists in its being concise, pertinent, efficacious, and agreeable.

PRESERVATIVE, a remedy taken by way of precaution, or to secure a person from a disease that threatens him. The principal preservatives, according to Boerhaave, are abstinence, quiet, drinking of warm water, and after this a gentle and continued motion till the first appearance of sweat; then a profuse sleeping, the body well covered. He adds, that the best defence against the force of external cold, is to lessen the winter's cloathing late in the spring, and to increase the summer's cloathing soon in autumn.

PRIMÆ VIÆ, the first passages of the chyle; including œsophagus, stomach, intestines, and their appendices.

PROLIFIC, having the qualities necessary for generating, preservative.

PROPHYLACTIC, Preventive.

PROVOCATIVE, a medicine which strengthens and stimulates. Such are cantharides, satyrian, &c.

PRURITUS, a painful though pleasing kind of sensation, familiarly called itching.

PSOROPHTHALMIA, a scurvy eruption of the eye-brows, attended with a pruritus, or itching of the part, or an inflammation and ulceration of the edges of the eye lids. Mr. Ware, in his remarks on the Ophthalmy, Psorophthalmy, and Purulent Eye, 1780, proposes for the cure of this disorder, the unguentum citrinum of the Edinburgh Dispensatory, applied to the parts, either with the finger or a small brush of camel's hair. He proves the utility of this application by the relation of several cases.

PTISAN, a cooling potion, usually made of barley boiled in water, and sweetened with liquorice, &c.

PTYALISM, a spitting or discharge of saliva by the glands of the mouth, whether it amounts to an absolute salivation or not,

PULMONARY

PULMONARY VESSELS, in anatomy, those which convey the blood from the heart to the lungs, and back again from the lungs to the heart.

PULSATION, the motion of the pulse, or the beating of an artery.

PUNCTURE, in surgery, any wound made by a pointed instrument.

PURULENT, something partaking of, or mixed with pus or matter.

PUS, in medicine, a white and thick putrid matter, formed of blood corrupted in a wound or ulcer, and issuing from its lips. Wounds should always be kept open while they suppurate, that is, while they generate pus.

PUTRID, something rotten or putrified: thus we say, putrid flesh, a putrid humour, &c.

PYRMONT WATER, a very brisk spirituous chalybeate, abounding in fixed air, and which, when taken up from the fountain at Pyrmont in Westphalia, sparkles like the briskest Champaign wine. It is said to possess the general virtues of the Spa water, and at the fountain it is a more spirituous, as well as a stronger chalybeate.

Q.

QUINTESSENCE, in chymistry, a preparation consisting of the essential oil of some vegetable substance, mixed and incorporated with spirit of wine.

R.

REGIMEN, the regulation of diet, and, in a more general sense, of all the non-naturals, for the preservation or restoration of health.

REINS, in anatomy, the kidneys, or that part of an animal whereby the urine is separated from the blood.

RELAXATION, in medicine, the act of slackening the tone or tension of the fibres, nerves, muscles, &c.

REPLETION, a plenitude, or plethora. Repletion of blood is more dangerous than inanition. The physicians hold all repletion prejudicial.

RIBS, in anatomy, long arched bones, serving to sustain the inner sides of the thorax or breast.

RUCTION, or Eructation, belching, a ventosity or windyness arising from indigestion, and discharging itself at the mouth with a disagreeable noise. Some belches are owing to repletion; others to inanition, or emptiness. Quincy says, hypochondriac and hysteric people are particularly liable to this complaint.

RUPTURE,

RUPTURE, in medicine, is when the thin film or caul, which holds up the intestines, is broken, stretched, or over-strained, so that the guts fall down either into the groin, scrotum, or elsewhere.

S.

SALIVA, the fluid by which the mouth and tongue are continually moistened, and is supplied by glands which form it, which are called *salivary glands*. This humour is thin, pellucid, and almost without taste or smell. By chewing, it is intimately mixed with our food, the digestion of which it greatly promotes. A too copious evacuation of it produces thirst, loss of appetite, bad digestion, and an atrophy.

SALIVAL DUCTS, small lymphatic canals, conveying the saliva into the mouth.

SALIVATION, a promoting of the flux of saliva, by medicines, but chiefly by mercury.

SANGUIFICATION, the act of converting the chyle into blood.

SCAPULA, in anatomy, the shoulder-bone, a large broad bone, situated on each side of the upper and back part of the thorax, from about the first rib down to the seventh.

SECRETION, in medicine, the separation of some fluid mixed with the blood by means of the glands.

SECUNDINES, in anatomy, the coats or membranes wherein the foetus is wrapped in the womb; as the corion and amnios, with the placenta, &c.

SENSATION, the act of perceiving external objects by means of the several organs of sense.

SEPTICS, in medicine, such substances or things as promote putrefaction. From the many curious experiments made by Dr. Pringle, it appears that there are many substances of a truly septic nature.

SERUM, a thin transparent saltish liquor, forming a considerable part of the mass of blood: the blood consisting of two kinds; the *cruur*, or red part; and the *serum*, or limpid part.

SETON, in surgery, a topical remedy, like a cautery, or an issue, to divert defluxions from the eyes, &c. by making a wound in the skin of the back part of the neck, which is kept suppurating, by means of a little skain of silk, or cotton, passed through it. They are more efficacious than a common issue, though prescribed with much the same intention.

SIGHING, an effort of nature, accelerating the motion of the lungs, so that the blood passes more freely, and in greater quantity, to the left auricle, and thence to the ventricle. Hence we learn, says Dr. Hales, how sighing increases the force

force of the blood, and consequently proportionably cheers and relieves nature, when oppressed by its too slow motion, which is the case of those who are dejected: *Hale's Statical Essay*, V. 2.

SKIN. See *Cuticle* and *Cutis*.

SLEEP, that state of the body in which, though the vital functions continue, the senses are not affected by the common impressions of external objects.

SPASM, convulsion.

STERNUTATIVE, or *Sternutatory*, a medicine which provokes sneezing.

STOMACHIC, is applied to a medicine that strengthens the stomach, and promotes digestion. Such are rhubarb, wormwood, mint, aloes, mastic, pepper, cinnamon, and aromatic bitters. Good wine is also a stomachic.

STYPTIC, in medicine, astringent; it is a remedy that has the virtue of stopping blood, or of binding up the aperture of a wounded vessel. There are several very efficacious styptic waters and powders.

SUBLIMATE, in chymistry, a preparation, the basis whereof is mercury or quicksilver. In making corrosive sublimate, the quicksilver is extinguished by trituration in calcined vitriol.

SUFFUSION, an overflowing of some humour observable in the skin; particularly that of the blood or bile. The redness arising from shame, is but a suffusion of blood appearing in the cheeks. The jaundice is a suffusion of bile over the whole body.

SUPPRESSION, in medicine, a stoppage or obstruction of a usual outlet, as suppression of urine, &c.

SUPPURATION, in medicine, the action whereby extravasated blood, or other humours in the body, are ripened, or changed into pus or matter.

SURGERY, a branch of medicine, including the knowledge of those diseases wherein the application of the hand is necessary, with the method of performing such manual operations as may be necessary.

SUTURE, in anatomy, a peculiar kind of juncture of certain bones in the animal body, so called from its resembling a seam. The bones of the cranium are usually joined by three sutures.

SYMPTOMATICAL, a term applied to denote the difference between the primary and secondary diseases. Thus a fever from pain is said to be *symptomatical*, because pain only is the cause of it; and therefore the usual means in fevers are not then to be had recourse to, but what will remove the pain: when that ceases, the fever will cease of course.

SYRINGE,

SYRINGE, an instrument to imbibe or suck in any fluid, and afterwards to squirt or expel it with violence. A syringe is indeed a single pump, and the water ascends in it on the same principle as in the common sucking pump.

T.

TABES, a general name for consumptions of all kinds. *Tabes dorsalis*, is a kind of consumption proceeding sometimes from an excessive application to venery; the proximate cause of which is a general debility of the nerves. The *tabes dorsalis* is the slowest in its progress of any consumption, but the most melancholy in its circumstances; and, unless timely obviated, for the most part fatal.

TENESMUS, a continual painful inclination to go to stool, perhaps without voiding anything, or only a little purulent or bloody-slime. It is not properly a primary disease, but a symptomatic one, and differs in degree according to the disorder on which it is attendant.

TEPID, warm, or lukewarm. The writers on mineral waters distinguish all the medicinal springs into three kinds; the hot, the tepid, and the cold.

THORAX, that part of the human body which forms the capacity of the breast, and in which are included the heart and lungs.

TOPHUS, a stony or chalky concretion in any part of an animal body, as in the bladder, kidneys, &c. or in the joints.

TOPICS, or *Topical Remedies*, in medicine, are such as are otherwise called external remedies, applied outwardly to some particular diseased and painful part. Topical remedies are plaisters, cataplasms, blisters, unguents, salves, &c.

TREMOR, trembling, a disease approaching to convulsion, wherein there is something of a convulsive motion, accompanying a natural or voluntary motion. A tremor is often produced by the more violent passions, particularly anger; and it sometimes degenerates into worse diseases, as palsy, apoplexy, lethargy, &c. The persons subject to tremors of the limbs are principally old people, in whom the vital principle is weak and languid.

TUMEFACATION, the act of swelling, or becoming a tumor.

TUMOR, or *Tumour*, a preternatural rising, swelling, or eminence on any part of the body.

TYMPANY, in medicine, a windy tumour, or swelling of the abdomen or belly, very hard, equable, and permanent; whereby the skin is stretched so tight, that, on being struck, it occasions a sound resembling that of a drum.

U. V.

VALETUDINARY, a term used by medical writers to denote a person of a weak, sickly constitution, who frequently finds himself out of order, &c. Dr. Cheyne strongly recommends a low, spare regimen to the weakly, the studious, the sedentary, and valetudinary.

VERTIGO, in medicine, a disorder of the brain, wherein the patient imagines that the objects about him turn round, and that he himself is turning round, though he remains perfectly still. The causes of vertiges are a continued turning round of the body, drunkenness, too long fasting, immoderate exercise, surprize, voracity, much use of pulse, onions, leeks, radishes, cabbage, mustard, &c. The first step in a cure is bleeding in the jugular, or cupping; then they proceed to an emetic; then a vesicatory on the neck, or a perpetual blister, or issues with sternutatories.

VIRULENT, a term applied to any contagious or malignant pus.

VISCERA, in anatomy, imports the entrails, including the heart, liver, lungs, spleen, intestines, and other inward parts of the body.

VISCIDITY, or *Viscosity*, the quality of being *viscid* or *viscous*, that is glutinous and sticky, like bird-lime.

VITAL FUNCTIONS, those operations of the vital parts whereby life is affected; so as that it cannot subsist without them. Such are the musculous action of the heart; the respiratory action of the lungs; the circulation of the blood and spirits through the arteries, &c.

VITRIOLIC, something partaking of the nature of vitriol.

VIVIPAROUS, a term applied to such animals as bring forth their young *alive* and perfect, in contradistinction to such as lay eggs, which are called *oviparous* animals. The females of all the quadruped class are *viviparous*, and those of the bird class are all *oviparous*. Among fishes, however, some are viviparous, and others oviparous, &c.

ULCERATION, a small aperture, or hole in the skin, caused by an ulcer. Caustic medicines occasion ulcerations in the skin. Arsenic ulcerates the part it sticks to. A salivation ulcerates the tongue and palate.

UNGUENT, ointment, a composition principally used in the dressing of wounds and ulcers. With respect to consistence, unguents hold the medium between liniments and cerates; being stiffer than the former, but softer than the latter.

URETHRA, in anatomy, a tube arising from the neck of the bladder, and continued to the pudendum, serving to carry off the urine out of the bladder.

URINE, a liquid excrement, or humour, separated from the blood in the kidneys, conveyed thence into the bladder, and discharged by the urethra. It affords one of the principal criterions or signs, whereby physicians judge of the state of the patient, and the course of the disease.

UTERINE, something belonging to the uterus.

VULNERARY, a term applied to remedies which are proper for the cure of wounds and ulcers.

W.

WEATHER, the state of the atmosphere, with regard to moisture, heat or cold, wind or calm, rain, hail, frost, snow, fog, &c. As it is in the atmosphere that all plants and animals live and breathe, and as that appears to be the great principle of most animal and vegetable productions, alterations, &c. there does not seem any thing, in all philosophy, of more immediate importance to us than the state of the weather.

WEN, in surgery, a tumor, or excrescence growing on different parts of the body, consisting of a bag, filled with some peculiar matter. It is not dangerous, but generally lasts a long while, beginning from very little, and growing gradually. Sometimes they degenerate into abscesses. The cure is to cut off the cystis, or bag, by the root, which is always narrow.

WHITLOW, a painful kind of tumour, arising at the ends of the fingers, and the roots of the nails.

WOMB, MATRIX, or UTERUS, in anatomy, that part of the female wherein the foetus is conceived and nourished till the time of its delivery.

WOUND, a recent separation made in the soft or fleshy parts of the body, from an external cause, and particularly from the action of some hard and sharp instrument. A similar situation happening in a bony part, is called a fracture.

Z.

ZOOLOGY, a treatise upon animals or living creatures, forming the most important part of natural history, specifying the form, structure, manner of living, propagation, &c. of the divers species of all living animals, and the descriptions of every kind.

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